Symbols

1100 CLEAR ... 80
1600-WHITE ... 81

A

ACID STAIN ... 197
ADA SOLUTIONS ... 72
ADHESIVE
   Acrylic ... 60
ADVANCED BUILDING PRODUCTS
   Copper Flashing ... 223
AMERICAN WICK DRAIN ... 138
   Site Drain
      Strip 6000 ... 139
ANCHORS
   Drop in ... 150
   Trubolt Wedge ... 149
ANTISPALL ... 95
ARDEX
   CD ... 42
   CD FINE ... 41
   CG Concrete Guard ... 88
   Concrete Patch ... 43
   EP 2000 ... 45
   Feather Finish ... 40
   K 15 ... 38
   MC Rapid ... 44
   P 51 ... 46
   V 1200 ... 39
ARMATEC ... 57

B

BACKER ROD ... 111
   104 Soft Type ... 111, 112
   Hot Rod XL ... 112
   Standard ... 110, 111, 112
BAR-CO ACCESS DOORS ... 215
BARRIER FORMS ... 18
BARS ... 163
BAR SUPPORTS ... 78
BAR TIES ... 77

BASF
   MasterEmaco
      T545 and T545HT ... 26
      MasterEmaco S 440 ... 24
      MasterEmaco S 440 MC ... 25
      MasterEmaco S 466CI ... 22
      MasterEmaco S 488CI ... 23
      MasterEmaco T 1060 ... 20
      MasterEmaco T 1061 ... 21
      MasterFinish EA ... 66
      MasterFlow 100 ... 47
      MasterFlow 648 ... 50
      MasterFlow 885 ... 49
      MasterFlow 928 ... 48
      MasterKure CC 180 WB ... 87
      MasterKure CC 250 SB ... 229
      MasterKure CC 300SB ... 230
      MasterKure CC 300 SX ... 83
      MasterKure ER 50 ... 82
      MasterKure HD 200WB ... 90
      MasterProtect H 400 ... 91
      MasterProtect H 1000 ... 89
      MasterSeal 615 ... 126
      MasterSeal NP 1 ... 105
      Sonosil ... 90

BEARING PADS
   Neoprene ... 17

BITS
   Bosch ... 154

BLADES
   Morse ... 159

BLANKET
   Curing ... 99
   Insulated ... 98

BOLTS
   Hook Bolts ... 68
   Longitudinal ... 68

BOOT
   Muck ... 233

BOOTS
   Muck ... 210
   Timberland Pro ... 209
BOSCH
  Spline Shank Hammer Bit ... 154
BOX GABIONS ... 131
BRIDGE OVERHANG BRACKETS ... 10
BRUSHES
  Floor ... 175
  Paint ... 177
  Wire ... 175
BURLAP ... 96
BUR LENE ... 96
BURLENE
  Synthetic ... 97
BUTTERFIELD COLOR
  Countertop Admixture ... 192
  MT Resurfer ... 192
C
CABLES ... 177
CARHARTT ... 208
CARNIE CAP ... 211
CAULKING GUNS ... 164
CERTI-VEX FORM RELEASE VOC ... 13
CERTI-VEX SURE SLIDE ... 68
CETCO
  Waterstop-RX ... 118
CGM
  Grout ... 53
CHAINS ... 177
CHAIR ... 78
CHAPIN
  Sprayers ... 190
CIRCULATING PUMP ... 188
CLEANER
  All Surface ... 142
  Sure Klean 600 ... 143
CLEMONS CONCRETE COATINGS
  Super Tard - F ... 67
COIL BOLT
  Adjustable ... 8
COIL LOOP INSERT
  Straight ... 9
COIL NUT ... 7
COIL ROD ... 8
COIL TIE
  Screw on ... 7
COIL TIES ... 5
COLEMAN CABLES ... 177
COLLOMIX
  Hand-held mixers ... 181
COMPOST FILTER TUBE ... 133
CONCRETE ACCESSORIES ... 79
  Stakes ... 79
CONCRETE CLEANER
  Light Duty ... 145
CONCRETE DRESSING ... 42
CONCRETE PATCH ... 43
CONCRETE TEST EQUIPMENT ... 188
  Circulating Pump ... 188
  Concrete Air Indicator ... 188
  Curing Tank Heater ... 188
  Slump Cone Test ... 188
  Tamping Rod ... 188
CONFLICT
  See MasterKure ER 50 ... 105
CONSTRUCTION SHEETING ... 100
COUPLER NUTS ... 68
CRAFCO
  RoadSaver 221 ... 104
CUP GRINDERS ... 160
CURING TANK HEATER ... 188
D
DAYTON SUPERIOR
  HD 25 VO ... 33
  HD 50 ... 34
  LEVEL TOPPING EXTERIOR ... 35
  Rebar Spray J62 ... 64
  Repair Mortar ... 33, 34
DEGREASER
  2010 All Surface Cleaner ... 142
  Ulrite, Heavy Duty ... 141
DENSICRETE ... 94
DESLAURIERS
  Impalement Protection ... 212
DETECTABLE WARNING SYSTEMS ... 72
DIAMOND CLEAR 350 ... 85
DIAMOND PRODUCTS
    Saw ... 160

DOOR
    Bar-Co Access Doors ... 215
    Republic Doors & Frames ... 213

DORMA Architectural Hardware ... 217

DOWEL BAR SPLICER ... 12
DOWEL CAPS ... 68
DOWEL SYSTEMS ... 69
DRAINS ... 73, 138
DRILLS ... 156
    Power Mixer ... 155

DUCT TAPES ... 179

DURAL 452 MV ... 55
DURAL FAST SET EPOXY ... 55
DURAL FAST SET GEL ... 55
DURAL FAST SET LV ... 56
DURALPREP A.C. ... 56
DYMONIC FC ... 101

EAGLE SAFETY CANS ... 175
ECON-O-GUARD ... 212
EDGER ... 166
ELCO ULTRACON ... 152
ELEPHANT TRUNK ... 187
ENVIROSEAL 40 ... 91
EPSON A7 ... 60
EPOXY
    ASTM C881 Standards ... 54
Erosion Control Blanket ... 135
ESTWING TOOLS ... 163
EUCLID
    Diamond Clear 350 ... 85
    Dural 452 MV ... 55
    Dural Fast Set Epoxy ... 55
    Dural Fast Set Gel ... 55
    Dural Fast Set LV ... 56
    Duralprep A.C. ... 56
    Speed Crete Red Line ... 30
    Super Diamond Clear ... 228
    Tammspatch II ... 31
    Tamms Thin Patch ... 32

EXPANSION JOINT - FIBRE ... 106
EXPANSION JOINT - RUBBER ... 108
EXPO-GLOSS OTC ... 84

F

FASTENERS ... 152
FASTSET CONCRETE MIX ... 27
FASTSET REPAIR MORTAR ... 29
FEATHER FINISH ... 40
FENCE ... 203

FILM
    Polyethylene ... 100

FILTER BAGS ... 135
FINISHING TOOLS ... 165
FINISHING TROWELS ... 169
FIVE STAR GROUT ... 52
FLASHING ... 223

FLAT TIE ... 3
FLOATS ... 168, 170

FOAMULAR 250 ... 129
FORM-A-KEY ... 129
FORM LINERS
    Architectural ... 15
FORM WORK ACCESSORIES ... 3

G

GABIONS ... 131
GENERAL PARTITIONS ... 218
GRAFFITI CONTROL ... 224

GREENGUARD
    PB4 ... 128

GREENSTREAK
    Concrete Handling Accessories ... 187
    Hydrotite Waterstop ... 116
    Leakmaster LV-1 ... 116
    PVC Waterstop ... 115
    PVC Waterstops ... 114
    Speed Dowel ... 70
    Speed Plate ... 69
    Swellstop ... 119

GRINDER ... 155, 157
    5” Angle ... 158
GROOVER ... 166
GROUT
  Five Star Non Shrink ... 52
  General Purpose ... 51
  Masterflow 100 ... 47
  Masterflow 648 ... 50
  Masterflow 885 ... 47
  Masterflow 928 ... 48
  Super Por-Rok ... 53
GROUT PUMPS ... 172

H
HAMMER BIT ... 154
HAMMERS ... 163
HANCOR
  Hi-Q ... 140
HARDHATS & GLOVES ... 205
HARNESSES ... 204
HD 25 VO ... 33
HD 50 ... 34
HEATER
  Curing Tank ... 188
HEAVY DUTY PAINT STRIPPER ... 148
HI-Q ... 140
HOES, SCRAPERS, CONTRACTOR RAKES ... 182
HOLE SAW ... 159
HOOK BOLT ... 11
HOOK BOLTS ... 68
HOPPERS ... 187
HOSE & HOSE ACCESSORIES ... 178
HUSQVARNA ... 184
HYDRAULIC WATER-STOP CEMENT ... 130
HYDROTITE WATERSTOPS ... 116

I
IMPALEMENT PROTECTION ... 212
  Carnie Cap ... 211
INSULATION BOARD ... 225
ITP ... 110, 111, 112
  Standard Backer Rod ... 110

J
J&K FOAM FABRICATING
  Expansion Joint ... 108
JOINT MATERIAL ... 108

K
KELKEN
  Keligrout ... 62
KEY-LOC JOINT SYSTEM ... 71
KLAAS
  Si-Rex03 ... 65
KLEIN TOOLS
  Erection Wrench ... 186
  Head Lamp ... 185
  Nail Pulling Bar ... 185
  Pliers ... 185
  Rebar Hickey ... 186
KRAFT TOOLS ... 165, 166, 168, 169, 170
  Overlay Tools ... 196
KURE-N-HARDEN ... 90
KURE-N-SEAL ... 87

L
LADDERS ... 171
LARSEN
  Weld-Crete ... 59
LEAKMASTER LV-1 ... 116
LEVELS ... 173
LEVEL TOPPING EXTERIOR ... 35
LIQUID ROC 300 ... 61
LOCKER ... 216
LOOP TIES ... 3

M
MACCAFERRI ... 131
  Box gabions ... 131
MAGNESIUM BULL FLOATS ... 168
MAKITA TOOLS ... 155
  Power Tools ... 155
MARKING & MEASURING TOOLS ... 179
MAR-MAC
  Bar-Ties ... 76
MARSHALLTOWN TOOLS ... 234
MASONRY FASTENERS ... 152
MasterEmaco
  T545 and T545HT ... 26
MasterEmaco S 440 ... 24
MasterEmaco S 440 MC ... 25
MasterEmaco S 466CI ... 22
MasterEmaco S 488CI ... 23
MasterEmaco T 1060 ... 20
MASTERFINISH EA ... 66
MASTERFLOW 100 ... 47
MASTERFLOW 648 ... 50
MASTERFLOW 885 ... 49
MASTERFLOW 928 ... 48
MasterKure CC 180 WB ... 87
MasterKure CC 250 SB ... 229
MasterKure CC 300SB ... 230
MasterKure CC 300 XS ... 83
MasterKure ER 50 ... 82
MasterKure HD 200WB ... 90
MASTERLOCK ... 171
MasterProtect H 400 ... 91
MasterProtect H 1000 ... 89
MASTERSEAL 615 ... 126
MASTERSEAL NP 1 ... 105
MATTOCK ... 182
  Pick, Cutter ... 182
MEASURING TOOLS ... 179
MEL-DEK ... 120
MEL-ROL ... 121
MESH ... 74
METABO TOOLS ... 157
  Angle Grinders ... 157
  Hammer Drill ... 156
  Rotary Hammer ... 156
MIXERS
  Power ... 181
  Whiteman ... 180
MKT
  Drop in Anchor ... 150
  Taper-Bolt ... 151
MOHAWK DOORS ... 214
MORSE BLADES ... 159
MUCK BOOTS ... 210, 233
MULTQUIP
  Mixer ... 180
  Trowel ... 180
N
NAILS ... 153
NEOPRENE SPONGE ... 16
NONWOVEN Geotextile ... 137
NYLON SLINGS ... 189
O
OIL & GREASE STAIN REMOVER ... 147
OVERLAY TOOLS ... 196
OWENS CORNING
  Extruded Polystyrene ... 129
P
PAVEMENT HOOK BOLTS ... 68
PB4 Waterproofing Protection Board ... 128
PEERLESS CHAINS ... 177
PICKS ... 182
PIPE HOLDER ... 6
PIPE RAILING ... 219
PLIERS ... 185
POLYCAST
  Presloped Trench Drain ... 73
POLYETHYLENE FILM ... 100
POLYETHYLENE HOPPERS ... 187
POR-ROK ... 53
POWER CABLES ... 177
POWER MIXER ... 181
POWER TROWEL ... 180
PREFABRICATED DRAINS ... 138
PREMOULDED MEMBRANE Vapor Seal with Plas-
  matic Core ... 122
PRESSURE SENSITIVE TAPE ... 179
PROFESSIONAL PRODUCTS ... 224
PROFLEX
  Vinyl Expansion Joint ... 109
PROLINE
  Acid Stain  ...  197
PRO PACK  ...  192
PROSOCO
  All Surface Cleaner  ...  142
  Heavy Duty Paint Stripper  ...  148
  Heavy Duty Restoration Cleaner NE  ...  146
  Light Duty Concrete Cleaner  ...  145
  Oil & Grease Stain Remover  ...  147
  Saltguard WB  ...  92
  Siloxane PD  ...  93
  Sure Klean 600  ...  142
  Vana Trol  ...  145
PROTECTION COURSE  ...  123
PVC WATERSTOPS  ...  114, 115

Q
QUIKRETE
  Fastset Concrete Mix  ...  27
  General Purpose Grout  ...  51
  Hydraulic Water-Stop Cement  ...  130
  Repair Mortar  ...  29
  Shotcrete  ...  28

R
RAILING  ...  219
RAKES  ...  182
REBAR  ...  75
REBAR SPRAY J62  ...  64
RED HEAD
  Acrylic Adhesive  ...  60
  Trubolt Wedge Anchors  ...  149
REFLEX
  Rubber Expansion  ...  108
REPAIR MORTAR  ...  29
  Horizontal  ...  33, 34
REPUBLIC
  Door  ...  213
  Locker  ...  216
ROADSAVER 221  ...  104
ROD CLAMPS  ...  4
ROPE & TIE DOWNS  ...  178
ROTARY HAMMER  ...  155
RUBBER EXPANSION  ...  108

S
SAFETY
  Cabinets  ...  175
  Storage Cans  ...  175
  Tapes  ...  179
SAFETY CAP  ...  212
SAFETY ITEMS
  Fence  ...  203
  Protective Wear  ...  205
  Self-Retracting Lifeline  ...  204
SALTGUARD WB  ...  92
SAW BLADES  ...  159, 160
SAWS
  Cutquik  ...  162
  Cutoff  ...  162
  Diamond Products  ...  160
  Early Entry  ...  184
  Hole  ...  159
  Makita  ...  155
  Masonry  ...  160
  Stihl Cutquik  ...  162
SCOOPS  ...  183
SCRAPERS  ...  182
SCREED
  Chair Base, Holders  ...  6
SEDIMENT FILTER BAGS  ...  135
SHEETING
  Construction  ...  100
SHOTCRETE  ...  28
SHOVELS  ...  183
SIKA
  Armatec  ...  57
  Sikadur 32, Hi-Mod  ...  58
  SikaTop 122 PLUS  ...  36
  SikaTop 123 Plus  ...  37
SILOXANE PD  ...  93
SILT FENCE  ...  132
SILT FILM  ...  136
SILTSACK  ...  134
SI-REX03  ...  65
SITEDRAIN  ...  139
Site Drain Sheet 180  ...  138
SLEDGE  ...  183
<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNAP-CAP</td>
<td>107</td>
</tr>
<tr>
<td>SPARTACOTE</td>
<td>231, 232</td>
</tr>
<tr>
<td>SPECIALTY TOOLS</td>
<td>163</td>
</tr>
<tr>
<td>SPECTREM® 800</td>
<td>103</td>
</tr>
<tr>
<td>SPEED CRETÉ RED LINE</td>
<td>30</td>
</tr>
<tr>
<td>SPEED DOWEL</td>
<td>70</td>
</tr>
<tr>
<td>SPEED-E-JOINT</td>
<td>107</td>
</tr>
<tr>
<td>SPEED PLATE</td>
<td>69</td>
</tr>
<tr>
<td>SPRAYERS</td>
<td>190</td>
</tr>
<tr>
<td>SQUEEGEES</td>
<td>175</td>
</tr>
<tr>
<td>STAKES</td>
<td>79</td>
</tr>
<tr>
<td>STAMPABLE OVERLAY</td>
<td>194</td>
</tr>
<tr>
<td>STAMPS</td>
<td>197</td>
</tr>
<tr>
<td>STANDARD SNAP TIES</td>
<td>2</td>
</tr>
<tr>
<td>STEEL HANGER</td>
<td></td>
</tr>
<tr>
<td>6-24 Type 4-A Pres-Steel</td>
<td>11</td>
</tr>
<tr>
<td>C-24 450 Pres-Steel</td>
<td>10</td>
</tr>
<tr>
<td>C-60 Type 4A Pres-Steel</td>
<td>9</td>
</tr>
<tr>
<td>Half</td>
<td>9</td>
</tr>
<tr>
<td>STEGO WRAP VAPOR BARRIER</td>
<td>127</td>
</tr>
<tr>
<td>STIHL</td>
<td>162</td>
</tr>
<tr>
<td>Pressure Cleaners</td>
<td>176</td>
</tr>
<tr>
<td>STRIKING TOOLS</td>
<td>182</td>
</tr>
<tr>
<td>SUPER DIAMOND CLEAR</td>
<td>228</td>
</tr>
<tr>
<td>SUPERIOR PIPE RAILING</td>
<td>219</td>
</tr>
<tr>
<td>SUPER POR-ROK</td>
<td>53</td>
</tr>
<tr>
<td>SUPER TARD - F</td>
<td>67</td>
</tr>
<tr>
<td>SUPPORTS</td>
<td></td>
</tr>
<tr>
<td>Bar &amp; Wire Mesh</td>
<td>78</td>
</tr>
<tr>
<td>SURE KLEAN 600</td>
<td>143</td>
</tr>
<tr>
<td>SURE SLIDE</td>
<td>68</td>
</tr>
<tr>
<td>SURFACE CLEANER</td>
<td>142</td>
</tr>
<tr>
<td>SWELLSTOP</td>
<td>119</td>
</tr>
<tr>
<td>T</td>
<td></td>
</tr>
<tr>
<td>T1000</td>
<td>195</td>
</tr>
<tr>
<td>TACTILE WARNING SYSTEM</td>
<td>72</td>
</tr>
<tr>
<td>TAMMSPATCH II</td>
<td>31</td>
</tr>
<tr>
<td>TAMMS THIN PATCH</td>
<td>32</td>
</tr>
<tr>
<td>TAPE</td>
<td></td>
</tr>
<tr>
<td>Duct</td>
<td>179</td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td>179</td>
</tr>
<tr>
<td>Safety</td>
<td>179</td>
</tr>
<tr>
<td>TAPER-BOLT</td>
<td>151</td>
</tr>
<tr>
<td>TENAX</td>
<td></td>
</tr>
<tr>
<td>Safety Fence</td>
<td>203</td>
</tr>
<tr>
<td>TEST EQUIPMENT</td>
<td>188</td>
</tr>
<tr>
<td>THERMOMETERS</td>
<td>188</td>
</tr>
<tr>
<td>THRACE LINQ</td>
<td></td>
</tr>
<tr>
<td>Slit Film</td>
<td>136</td>
</tr>
<tr>
<td>THRACE-LINQ</td>
<td>226, 227</td>
</tr>
<tr>
<td>TIE-DOWN &amp; RIGGING</td>
<td>189</td>
</tr>
<tr>
<td>TIE HOLDER AND WATER TIE</td>
<td>3</td>
</tr>
<tr>
<td>TIE-WIRE REEL</td>
<td>185</td>
</tr>
<tr>
<td>TIGHTENING WRENCH</td>
<td>4</td>
</tr>
<tr>
<td>TIMBERLAND PRO BOOT</td>
<td>209</td>
</tr>
<tr>
<td>TOILET PARTITIONS</td>
<td>218</td>
</tr>
<tr>
<td>TOOLS</td>
<td></td>
</tr>
<tr>
<td>Estwing Specialty</td>
<td>163</td>
</tr>
<tr>
<td>Floats</td>
<td>168</td>
</tr>
<tr>
<td>Groover</td>
<td>166</td>
</tr>
<tr>
<td>Klein</td>
<td>185</td>
</tr>
<tr>
<td>Kraft</td>
<td>165</td>
</tr>
<tr>
<td>Kraft</td>
<td>165</td>
</tr>
<tr>
<td>Makita</td>
<td>155</td>
</tr>
<tr>
<td>Marking, Measuring</td>
<td>179</td>
</tr>
<tr>
<td>Marshalltown</td>
<td>234</td>
</tr>
<tr>
<td>Metabo</td>
<td>156</td>
</tr>
<tr>
<td>Rakes</td>
<td>182</td>
</tr>
<tr>
<td>Shovels</td>
<td>183</td>
</tr>
<tr>
<td>Sledge</td>
<td>183</td>
</tr>
<tr>
<td>Trowels</td>
<td>169</td>
</tr>
<tr>
<td>TREMCO</td>
<td></td>
</tr>
<tr>
<td>Dymonic FC</td>
<td>101</td>
</tr>
<tr>
<td>Spectrem 800</td>
<td>103</td>
</tr>
<tr>
<td>TREMproof 250GC</td>
<td>124</td>
</tr>
<tr>
<td>Vulkem 45SSL</td>
<td>102</td>
</tr>
<tr>
<td>TROUBLE LIGHTS</td>
<td>177</td>
</tr>
<tr>
<td>TROWELS</td>
<td>169</td>
</tr>
<tr>
<td>WALK BEHIND</td>
<td>180</td>
</tr>
<tr>
<td>TRUBOLT WEDGE ANCHORS</td>
<td>149</td>
</tr>
<tr>
<td>TUBES</td>
<td>14</td>
</tr>
<tr>
<td>TURNBUCKLE FORM ALIGNER</td>
<td>4</td>
</tr>
</tbody>
</table>
ULTRACON ... 152  
Masonry Fasteners ... 152
ULTRITE DEGREASER ... 141
UNDERLAYMENT  
Ardex V 1200  ...  39  
Self-Leveling  ...  38
UNION TOOLS ... 182, 183

VACUUM CLEANER ... 158
VALSPAR  
Greenbar Touchup Coating Kit ... 63
VANA TROL ... 144
VAPOR BARRIER, Stego Wrap ... 127
VAPOR SEAL WITH PLASMATIC CORE ... 122
VEXCON  
Antispall ... 95  
Certi-Vex Sure Slide ... 68
VINYL EXPANSION ... 109
VOCOMP - 20, 25, 30 ... 86
VULKEM 45SSL ... 102

WATERPROOFING PROTECTION BOARD ... 128
WATER SEALANT  
Anti-Graffitiant ... 224
WATERSTOP ... 119  
Basic Use ... 113  
Hydrotite ... 116
PVC ... 114
Swellstop ... 119
Westec TPE-R ... 117
WATER-STOP CEMENT ... 130
WATERSTOP-RX ... 118
WEB DEVICES  
Harness ... 204
WEDGE BOLT ... 3
WELD-CRETE ... 59
WERNER LADDERS ... 171

WICKTEK, INC.  
DensiCrete ... 94
WIRE BAR TIES ... 77
WIRE MESH ... 74
WORK BOOT ... 209
W. R. MEADOWS  
1100 CLEAR ... 80
1600-WHITE ... 81
Expansion Joint ... 106
Expo-Gloss OTC ... 84
Mel-Dek ... 120
Mel-Rol ... 121
PROTECTION COURSE ... 123
Snap-Cap ... 107
Speed-E-Joint ... 107
Ultrite DeGreaser ... 141
Vaporproofing/Waterproofing Membrane ... 122
VOCOMP ... 86
Dayton Superior’s reputation as the industry leader in the design, manufacturing and distribution of specialized concrete construction products is the result of innovation backed by more than 100 years of experience. Proven concrete solutions that span a wide breadth of industry disciplines and the most comprehensive product offering in concrete construction makes Dayton Superior the preferred partner for distributors, contractors, architects and engineers.

Dayton Superior’s products are found on virtually every major construction site in North America including:

- Local roadways, national highways, runways and bridges.
- High-profile urban high-rises and suburban mixed use structures.
- Water treatment and government service facilities, education and healthcare institutions
- Entertainment venues, retail and restaurant projects

With an unwavering commitment to continuous improvement, Dayton Superior employs creativity and discipline to develop timely and innovative solutions that add value for customers and distributors through.
A 3 STANDARD SNAP TIES

Dayton Superior A3 Standard Snap Ties are manufactured with either hot or cold forged integral heads. A3 snap ties have a nominal 1” breakback with 1/4” and 1/2” breakbacks available on special order. Breakbacks over 1” can be provided on special order, but due to the increased concrete bond, Dayton Superior cannot guarantee that the ties will consistently provide proper breakback. Coating the tie ends with wax will aid in breakback operation.

Advantages:
2,250 lbs. Safe Working Load @ 2:1 Safety Factor

How to Order:
Specify: (1) quantity, (2) name, (3) wall thickness, (4) lumber and wedge dimension (allow 1/2” for wedge take up), (5) breakback.

Example: 3,000 pcs. A-3 Standard Snap Tie, 18” wall, 8-1/4” L&W, 1” breakback.

Purpose:
Each A-3 snap tie is fabricated with flats or crimps to prevent the snap tie from turning in the concrete during breakback operations. A-3 Snap Ties are available with fixed metal spreader washers.

A 3 HEAVY SNAP TIES

Dayton Superior A3 Heavy Snap Ties are used when a higher safe working load is required.

The A3 snap tie is manufactured with cold forged integral heads and is equipped with flats or crimps to prevent turning.
FORM WORK ACCESSORIES

A21X - FLAT TIE

Accessories | Wall Forming Accessories | Light Forming Products

Dayton Superior A21X Flat Tie is used with the A51 Wedge Bolt to secure and space modular forms.

A51 - WEDGE BOLT

Forming | Steel-Ply | Accessories

Dayton Superior A51 Wedge Bolt is used with A46 Loop Panel Ties, B21 Plylags, etc., to secure modular type forms.

3,750 lbs. Safe Working Load

A46 - LOOP TIES

Forming | Steel-Ply Ties | Breakback Ties

A46 - Loop Ties are designed for securing and spacing modular type forms.

2,250 lbs. for Standard Ties 3,000 lbs. for Heavy Ties Safe Working Loads

A52 Z TIE HOLDER AND A53 WALER TIE

Dayton Superior A52 Z Tie Holder is used in conjunction with the A53 Waler Tie to secure double 2x lumber wales to modular type forms. The A53 Waler Tie is available in two sizes to accommodate 2 x 4 and 2 x 6 lumber.
A-27 TURNBUCKLE FORM ALIGNER

The A-27 Turnbuckle Form Aligner consists of a 1-1/2” x 1-1/2” x 20” angle welded to a 1” diameter turnbuckle assembly. The self-cleaning coil thread offers quick adjustment for plumbing and aligning formwork. Minimum overall length of the aligner is 37”. Maximum extended overall length is 40”.

Nail holes in the angle allow the unit to be affixed to a length of 2 x 4 or 2 x 6 to extend the effective length of the aligner. The nailing plate is furnished with nail holes for attaching to the form and has a 15/16” hole for use with steel stakes. The safe working load of the A-27 aligner is limited by the lumber, nailing and/or staking procedures used.

ROD CLAMPS

The D-12 Rod Clamps are cast malleable iron clamps used with smooth or deformed 1/4”, 3/8” and 1/2” rod to tie forms. The rod is clamped securely by a bolt or nut/bolt combination. Nail holes are provided to affix the clamp to the wales. For an additional safety measure, Dayton Superior recommends bending the rod approximately 90 degrees behind the clamp.

TIGHTENING WRENCH

Dayton Superior D-14 Tightening Wrench is placed over a smooth or deformed rod behind a rod clamp and is used to draw the assembly tight allowing the clamp to be properly tightened. The D-14 wrench is available in 1/4”, 3/8” and 1/2” sizes. Caution: Do not use the D-14 Tightening Wrench for straightening forms or for pulling smooth rod from set concrete.
B-1 AND B-2 COIL TIES

B-1 and B-2 Coil Ties are strong, versatile resistance welded ties designed to take the abuse encountered in medium and heavy concrete construction. The coil tie is an extremely simple tie that is capable of servicing many applications and uses in the field. It can be used with or without cones or combined with coil rod to form an adjustable tie. The coil threads are fast acting and self-cleaning. B-2 Four Strut Coil Tie couplers are available and are used in conjunction with D-18 Inside Rods to compensate for form variations. To determine the required coil tie length, subtract two times the desired or specified setback from the wall thickness [Wall thickness – 2 x setback) = coil tie length].

<table>
<thead>
<tr>
<th>B-1 and B-2 Coil Tie Selection Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>B-1 Standard</td>
</tr>
<tr>
<td>B-1 Heavy</td>
</tr>
<tr>
<td>B-1 Standard</td>
</tr>
<tr>
<td>B-1 Heavy</td>
</tr>
</tbody>
</table>

Coil Tie with Loose (Spreader) Cones
Cones are generally used when wall thickness is very thick or an architectural finish is specified.

Coil Tie as Spreader and Tie
The coil tie can be used as a combination tie and form spreader when it is not necessary to keep the ends of the tie back from the face of the concrete. If a number of form reuse is contemplated, standard cut washers should be used at the tie ends to protect the form face.

Forming
G-1 PIPE HOLDER

Dayton Superior G-1 Pipe Holder is designed to be used with 1/2” or 3/4” screed chairs to support pipe screed bars.

To Order: Specify: (1) quantity, (2) name, (3) diameter, (4) length.

G-5 SCREED CHAIR BASE, FREE FIT TYPE

Any Dayton Superior screed chair or base can be furnished with an oversize, slip-fit ferrule. This arrangement allows for adjustment without turning the base or the cradle head. Adjustment is obtained by turning the jam nut. The free-fit feature is especially useful when it is desirable to weld the screed base to steel sub-structures.

To Order: Specify: (1) quantity, (2) name, (3) diameter, (4) height.

G-14 HEAVY DUTY SCREED HOLDERS

Dayton Superior G-14 Heavy Duty Screed Holders consist of a rolled steel plate welded to a length of 1” diameter coil rod. The G-14 screed holder is used with a free-fit screed base to support screed pipe of various sizes. The “open style” is fabricated from grade 11-gauge steel and is limited to 2” O.D., or smaller, pipe. The “closed style” is fabricated from 1/4” steel and is fitted with two 3/8” diameter set screws. The closed style holder can accommodate screed pipe up to 3” O.D. Both styles are available in 4-1/4”, 6-3/4” and 9-3/4” lengths with one Coil Nut included with each holder.

To Order: Specify: (1) quantity, (2) name, (3) style, (4) length.

G-16 HEAVY DUTY SCREED CHAIR BASE

Dayton Superior G-16 Heavy Duty Screed Chair Base is a rigid support designed for heavy vibratory screed applications. G-16 bases are available with standard 1” and 1-1/4” coils or free-fit ferrules. Standard heights for the G-16 base are 4-1/2”, 5-1/2”, 7-1/2” and 10”.

To Order: Specify: (1) quantity, (2) name, (3) diameter, (4) height.

Forming
Dayton Superior Screw-On Coil Tie is designed with longer coils that extend beyond the end of the struts. Plastic cones screw onto the projections to provide a positive setback and act as a fixed internal form spreader.

To determine proper screw-on coil tie length, subtract the required total setback (both sides) from the wall thickness.

**How to Order:** Specify: (1) Quantity, (2) Name, (3) safe working load, (4) bolt diameter, (5) tie length, (6) wall thickness, (7) setback.

## B-3 Screw-On Coil Tie Selection Chart

<table>
<thead>
<tr>
<th>Type</th>
<th>Bolt Diameter</th>
<th>Number of Strut Wires</th>
<th>Safe Working Load Tension (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-3 Standard</td>
<td>1/2”</td>
<td>2</td>
<td>4,500</td>
</tr>
<tr>
<td>B-3 Heavy</td>
<td>1/2”</td>
<td>2</td>
<td>6,750</td>
</tr>
<tr>
<td>B-3 Standard</td>
<td>3/4”</td>
<td>2</td>
<td>6,750</td>
</tr>
<tr>
<td>B-3 Heavy</td>
<td>3/4”</td>
<td>2</td>
<td>9,000</td>
</tr>
</tbody>
</table>

## B-13 COIL NUT AND B-25 HEAVY COIL NUT

Dayton Superior B-13 Coil Nuts are available with coil threads in 1/2”, 3/4”, 1”, 1-1/4” and 1-1/2” diameters. Dayton Superior B-25 Heavy Coil Nuts are available with coil threads in 1/2”, 3/4”, 1”, and 1-1/4” diameter.
B-12 COIL ROD

Available in 1/2” to 1-1/2” diameters in 12’ lengths. Field cutting can be accomplished with bolt cutters or carborundum blades. B-12 threaded rod can be used with Coil Ties in many forming combinations to tie formwork, for adjustable ties, for concrete embedments and/or emergency ties. PennDOT Approved

Safety Factor 2:1

---

B14A ADJUSTABLE COIL BOLT

B14A Adjustable Coil Bolt consists of a length of B12 Coil Rod with a B13 Coil Nut on the other end.

APPLICATION:
The B14A allows formwork adjustments to be made with the free-running nut and can accommodate various form thicknesses as with one size adjustable bolt. This is especially useful in forming battered walls.

FEATURES:
B14A Adjustable Coil Bolts are designed to be reusable, but they do wear and must be continuously inspected and re-placed when wear or damage is noted. A waterproof grease should be applied to the portion of bolt that will be embedded in the concrete. This will facilitate bolt removal from the set concrete. The ultimate load of the B14A is limited by ultimate load of the welded coil nut head.

---

Coil Rod Selection Chart

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Tension (lbs.)</th>
<th>Shear (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>9,000</td>
<td>6,000</td>
</tr>
<tr>
<td>5/8”</td>
<td>12,000</td>
<td>8,000</td>
</tr>
<tr>
<td>3/4”</td>
<td>18,000</td>
<td>12,000</td>
</tr>
<tr>
<td>7/8”</td>
<td>24,000</td>
<td>16,000</td>
</tr>
<tr>
<td>1”</td>
<td>38,000</td>
<td>25,300</td>
</tr>
</tbody>
</table>

B14A Adjustable Coil Bolt Selection Chart

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Safe Load Tension (lbs.)</th>
<th>Safe Load Shearer (lbs.)</th>
<th>Minimum Area (sq. in.)</th>
<th>Minimum Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>12,000</td>
<td>9,000</td>
<td>0.1385</td>
<td>2”</td>
</tr>
<tr>
<td>3/4”</td>
<td>18,000</td>
<td>12,000</td>
<td>0.3079</td>
<td>2 1/4”</td>
</tr>
</tbody>
</table>
B-16 COIL LOOP INSERT STRAIGHT

B-16 inserts are available in 1/2”, 3/4” and 1” nominal diameter standard or screw-on coil and in various standard lengths. The B-16 is also available in other than standard lengths.

**How to Order:**
Specify: (1) quantity, (2) name, (3) diameter, (4) insert length.

**PennDOT Approved**

C-24 45° PRES-STEEL HALF HANGER

C-24 45° Pres-Steel Half Hangers are manufactured with a single 1/2” end section welded to a jogged wire strut and are used where conditions prevent the use of standard double-ended hangers.

Standard Style AS hangers measure 6” from the centerline of the bolt to the end of the strut. These hangers are designed to be welded to the top surface of steel girders. Lengths other than standard are available.

<table>
<thead>
<tr>
<th>Type</th>
<th>Max. Safe Working Load</th>
<th>A Standard</th>
<th>B Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-AS</td>
<td>6,000 lbs. per side</td>
<td>6”</td>
<td>3”</td>
</tr>
</tbody>
</table>

**C-60 TYPE 4A PRES-STEEL**

The Type 4-A Press-Steel Hanger is fabricated with a 900-interlock type end clip and a 450 end clip, both of which are electric resistance welded to a 0.440” diameter wire strut. Both end clips are designed to accept 1/2” diameter coil bolts and/or coil rods and nuts.

<table>
<thead>
<tr>
<th>Type</th>
<th>Safe Working Load</th>
<th>Bolt Diameter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-A</td>
<td>6,000 lbs. per side</td>
<td>1/2”</td>
<td>1/2”</td>
<td>3”</td>
<td>.440”</td>
<td>1/2”</td>
</tr>
</tbody>
</table>
C49, C49D, C49S and C49JR
BRIDGE OVERHANG BRACKETS

Dayton Superior offers the bridge contractor four different versions of the C49 Bridge Overhang Bracket, which allows for maximum adjustability to meet the varied bridge overhang forming requirements on both structural steel and precast/prestressed concrete beams. The C49 is the most versatile overhang bracket available and is used for general conditions. The C49D version is used on deep beams. The C49D bracket is identical to the C49 bracket, except it uses longer bottom diagonal and vertical legs.

The C49S bracket is a field modified C49. The C49 is modified by removing the inner vertical leg. Using only the outer vertical leg, the bracket can be adjusted to a minimum vertical height of 14”. This bracket is ideal for use on shallow steel or concrete beams. The C49JR is a small bracket used in situations where the horizontal member of the standard C49 Overhang Bracket is too long, due to limited space between twin bridges. The adjusting nut at the outboard end of the bracket is used to adjust the bracket to grade.

C-24 450 PRES-STEEL HALF HANGER

C-24 45° Pres-Steel Half Hangers are manufactured with a single 1/2” end section welded to a jogged wire strut and are used where conditions prevent the use of standard double-ended hangers.

Standard Style AS hangers measure 6” from the center-line of the bolt to the end of the strut. These hangers are designed to be welded to the top surface of steel girders. Lengths other than standard are available.

<table>
<thead>
<tr>
<th>C-24 Pres-Steel Half Hanger Selection Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>4-AS</td>
</tr>
</tbody>
</table>

Forming
C-64 TYPE 4-A PRES-STEEL
HALF HANGER

This type of hanger works extremely well on bridge rehab projects, bridge widening jobs and other similar projects where only exterior formwork support is required. This hanger can also be used on concrete girders with 5” minimum flange thickness on Type 4-A and 4-AN hangers. The actual safe working load of these hangers is highly dependent on the size of the headed shear stud, as well as the strength of the weld between the stud and the beam flange.

The Type 4-A and 4-AN use a 1/2” diameter 45° coil bolt.

D-1-LA HOOK BOLT

The D-1-LA Hook Bolt combined with the Type 4-A hanger, above, provides a heavy-duty hanger system for supporting one-sided exterior formwork. This method has a safe working load of 6,000 pounds with an approximate 2:1 safety factor. This is based on the Hook Bolt being properly tightened and aligned perpendicular to the steel beam. Check alignment of the hook just prior to concrete placement—misalignment could result in a premature failure. The D-1-LA bolt is available with coil or NC thread.

To Order: Specify: (1) quantity, (2) name, (3) thread type, (4) dimensions of the hook bolt.
DOWEL BAR SPICER

Dowel Bar Splicer System has been engineered, tested, and proven to meet, or exceed, field standards and design/engineering practices. It achieves excellent compatibility with normal procedures and has a rewarding benefit of improved costs and time savings. The System is strong, easy to use, and readily identified as re-bar material. The application requires no special tools. The easy installation accomplishes forming simplicity. No extra elements such as mechanical wedges, nuts, collars, couplers or termite material, are required. Routine cutting, threading, bending, etc., can be easily handled in the field.

Both are forged from Grade 60 rebar material and available in #4 through #11 sizes, plain or epoxy coated finish.

The Dayton Superior Dowel Bar Splicer System is a two-piece, standard mechanical splicing technique (splicing bars of equal size) that eliminates protruding dowels. Typical applications include splicing reinforcement bars in monolithic structures, rebar anchorages, future expansion, and dowel bar substitution at construction joints. The components of the system, the Splicer and Dowel-In, are manufactured from standard grade 60 rebar material. Basic fabrication consists of forging and threading operations. No welding or machining is required and the threading operation does not reduce the nominal cross-sectional area of the bar. The completed splice (joined Splicer and Dowel-In) obtains ultimate bar strengths and meets or exceeds all existing code requirements including 160% fy or 95% of bar actual tensile requirements as identified by ICC acceptance criteria AC 133.
CERTI-VEX FORM RELEASE VOC

CERTI-VEX FORM RELEASE VOC products are premium chemically active form release agents that ensure a clean positive release for many types of concrete forms. Certi-Vex Form Release VOC products are ready to use and ideal for all applications ranging from foundations to architectural concrete.

BENEFITS:

* Provides clean and smooth grain free concrete surfaces
* Reduces concrete build up
* Ensures easy stripping of forms
* Will not stain or discolor concrete
* Quick Drying
* Reduces surface air voids (bug holes)
* Minimizes concrete surface dusting
* Minimum labor - just spray, brush or dip forms
* Reduces surface preparation and painting cost
* Protects and maintains forms
* Use at temperature as low as 20°F
* Minimizes rust formation

CONCRETE FORM MOLDING (KANT OR CHAMFER STRIP)

Smooth milled from clear kiln-dried lumber. Sold in full bundles.

Available in P.V.C. Plastic

Forming
WILSON TUBES
*For forming low cost round concrete columns*

Wilson fiber tubes combine strength, economics and ease of handling to make them the ideal forming method for concrete columns, footings and piers. Wilson tube means quality and has a heavy coating of wax on the outer surface for protection against adverse weather conditions. A special coating ply on the inside gives easy stripping without the need for form release agents.

*Pouring*

The rugged construction of the Wilson Tube is designed for full hydrostatic pressure of concrete up to 45 ft. with a safety factor of 5.

POLI-NEWFORM
*The perfect finish for concrete columns*

Poli-NewForm Concrete Forming Tubes are designed to hold the full hydrostatic pressure of concrete in a single pour. However, high impact during placing should be avoided by using elephant trunks or pouring chutes. Water should not be used to facilitate concrete movement and form oils are not required. Concrete should be poured evenly with a vibrator just below the surface to eliminate air pockets. Pour rates of 10 to 20 feet per hour are acceptable. For the best surface finish, use plasticizers and small, 3/8” round stone aggregate and vibrate thoroughly.
ARCHITECTURAL FORM LINERS

Ideal for texturing tilt-up, cast-in-place and precast concrete, Greenstreak liners are attached to the forming system or casting bed prior to concrete placement. After normal placement and curing time, the form work and liner are stripped — leaving an architectural finish in the concrete. Form liners are available in several grades to economically cast an architectural finish for both large and small budget projects and can be used with any forming system or method.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>MATERIAL TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni-Cast</td>
<td>Rigid Polymer (HIPS)</td>
<td>A single use form liner ideal for tilt-up panels and cast-in-place construction requiring cut-outs for doors, windows, utilities, etc. Nominal 4’ x 10’ sheets.</td>
</tr>
<tr>
<td>Multi-Cast</td>
<td>Rigid Polymer (ABS)</td>
<td>Intermediate use form liner, designed for 2-10 uses under normal job site conditions. Primarily used for cast-in-place applications. Nominal 4’ x 10’ sheets.</td>
</tr>
<tr>
<td>Dura-Cast</td>
<td>Rigid Polymer (ABS)</td>
<td>Intermediate use form liner, designed for 10-25 uses under normal job site conditions. Primarily used for cast-in-place and gang forming applications. Nominal 4’ x 10’ sheets.</td>
</tr>
<tr>
<td>Super-Cast</td>
<td>Elastomeric (Urethane compound)</td>
<td>High use form liner, designed for up to 40 uses under normal job site conditions. Used for gang forming, cast-in-place and precast applications. Liner sizes vary from 8’ max. width to 32’ max. length.</td>
</tr>
<tr>
<td>Ultra-Cast</td>
<td>Elastomeric (Urethane)</td>
<td>High use form liner, designed for up to 100 uses under normal job site conditions. Used for very large gang forming, cast-in-place and precast applications. Liner sizes vary from 8’ max. width to 32’ max. length.</td>
</tr>
</tbody>
</table>
CUSTOM CUT NEOPRENE SPONGE

The George L. Wilson Company can fabricate closed cell neoprene sponge for typical waterproofing and expansion detail on all types of beam designed bridges, approach slabs and concrete box culverts.

Material Specifications:
ASTM D-1056 - 2C2 B3 C3 F1

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Test Method</th>
<th>Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>ASTM D 1056</td>
<td>0.112 ±0.032</td>
</tr>
<tr>
<td></td>
<td>lb/ft³</td>
<td>ASTM D 1056</td>
<td>7 ± 2</td>
</tr>
<tr>
<td>Hardness, durometer Shore 00</td>
<td>kPa</td>
<td>ASTM D 2240</td>
<td>60 ± 5</td>
</tr>
<tr>
<td>Compression Deflection (25%)</td>
<td>psi</td>
<td>ASTM D 1056</td>
<td>48 ± 14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASTM D 1056</td>
<td>7 ± 2</td>
</tr>
<tr>
<td>Compression Set</td>
<td>%</td>
<td>ASTM D 1056</td>
<td>≤ 25%</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>kPa</td>
<td>ASTM D 412 (Die A)</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>psi</td>
<td>ASTM D 412 (Die A)</td>
<td>80</td>
</tr>
<tr>
<td>Tear Strength</td>
<td>kN/m</td>
<td>ASTM D 624 (Die C)</td>
<td>3.2</td>
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<tr>
<td></td>
<td>lb/in</td>
<td>ASTM D 624 (Die C)</td>
<td>18</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>ASTM D 412 (Die A)</td>
<td>120%</td>
</tr>
<tr>
<td>Resilience</td>
<td>%</td>
<td>ASTM D 2631</td>
<td>10%</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>*F</td>
<td>ASTM D 746</td>
<td>-40</td>
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<tr>
<td>Low</td>
<td></td>
<td>ASTM D 746</td>
<td>150</td>
</tr>
<tr>
<td>High Continuous</td>
<td></td>
<td>ASTM D 746</td>
<td>200</td>
</tr>
<tr>
<td>High Intermittent</td>
<td></td>
<td>ASTM D 746</td>
<td></td>
</tr>
<tr>
<td>Water Absorption</td>
<td>%</td>
<td>ASTM 1056</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>Maximum Weight Change</td>
<td></td>
<td>ASTM D 1056</td>
<td>&lt; 250%</td>
</tr>
<tr>
<td>Fluid Immersion (7 days @ 73.4°F)</td>
<td>%</td>
<td>ASTM D 1056</td>
<td>Pass</td>
</tr>
<tr>
<td>ASTM Ref. Fuel B, Weight change (%)</td>
<td></td>
<td>None</td>
<td>± 30%</td>
</tr>
<tr>
<td>Accelerated Aging (7 days @ 158°F)</td>
<td>%</td>
<td>ASTM D 1056</td>
<td>Pass</td>
</tr>
<tr>
<td>Flexibility (180° bend without cracking)</td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Appearance Change</td>
<td></td>
<td>ASTM D 1056</td>
<td></td>
</tr>
<tr>
<td>Change in Compression Deflection</td>
<td></td>
<td>ASTM D 1056</td>
<td></td>
</tr>
<tr>
<td>Combustion Characteristics</td>
<td></td>
<td>FMVSS-302</td>
<td>Pass</td>
</tr>
<tr>
<td>Suffix B3: Compression Set (%)</td>
<td>%</td>
<td>ASTM D 1056</td>
<td>±</td>
</tr>
<tr>
<td>ASTM D 1056-00 Requirements: 35% max</td>
<td></td>
<td>ASTMD 1056</td>
<td></td>
</tr>
<tr>
<td>Suffix C3: Ozone Resistance 6 wk outdoor Exposure, Quality Retention</td>
<td>%</td>
<td>ASTM D 1171 Method B</td>
<td>100%(Pass)</td>
</tr>
<tr>
<td>Suffix F1: Low Temperature resistance 5H @-40°F(Flex, 180° bend around mandrel 4 x diameter of sample thickness</td>
<td>%</td>
<td>No Cracking</td>
<td>Pass</td>
</tr>
</tbody>
</table>
NEOPRENE BEARING PADS

Neoprene Bearing Pads are molded or cut form molded sheet of high-grade, new rubber compound.

Use: As economical efficient bearing pads for pre-cast, pre-stressed concrete or steel beams in bridges and buildings. Neoprene Pads permit a smooth and uniform transfer of load form the beam to the substructure, allow beam rotation at the bearing due to deflection of the beam under load. Neoprene Pads have no movable parts and thermal expansion and contraction are absorbed by the pad’s ability to give and take in shear. There is no sliding between pad and beam or between pad and abutment.

<table>
<thead>
<tr>
<th>Material Property</th>
<th>ASTM Standard</th>
<th>Test Requirements</th>
<th>Test Requirements</th>
<th>50 Duro</th>
<th>POLYCHLOROPRENE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Properties</td>
<td>D2240</td>
<td>Hardness</td>
<td>50 ± 5</td>
<td>60 ± 5</td>
<td>Shore Pt.</td>
</tr>
<tr>
<td></td>
<td>D412</td>
<td>Min tensile strength</td>
<td>2500</td>
<td>2500</td>
<td>psi (Mpa)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Min ultimate elongation</td>
<td>400</td>
<td>350</td>
<td>%</td>
</tr>
<tr>
<td>Heat Resistance</td>
<td>D573 at *spec. Temp</td>
<td>Specified temp of test</td>
<td>212 (100)</td>
<td>212 (100)</td>
<td>°F (°C)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aging time</td>
<td>70</td>
<td>70</td>
<td>Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max change in Duro hardness</td>
<td>+15</td>
<td>+15</td>
<td>°Shore pt.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max change in tensile strength</td>
<td>-15</td>
<td>-15</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max change in ultimate elongation</td>
<td>-40</td>
<td>-40</td>
<td>%</td>
</tr>
<tr>
<td>Impression Act</td>
<td>D395</td>
<td>Method B at *spec. Temp</td>
<td>Specified temp of test degrees</td>
<td>212 (100)</td>
<td>212 (100)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td>35</td>
<td>%</td>
</tr>
<tr>
<td>Bar resistance</td>
<td>D624</td>
<td>Min pounds per inch (Die C)</td>
<td>180</td>
<td>180</td>
<td>Pounds/inch</td>
</tr>
<tr>
<td>Britleness</td>
<td>D2137</td>
<td>Low temp brittleness at -40°F (-40°C)</td>
<td>Pass</td>
<td>Pass</td>
<td>Mpa</td>
</tr>
<tr>
<td>Ozone Resistance</td>
<td>D1149</td>
<td>Partial presser of ozone during test</td>
<td>50</td>
<td>50</td>
<td>Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Duration of test</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tested at 20% strain</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100°F±2°F (37.7°C±1°C)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mounting Procedure</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Forming
BARRIER FORMS

Modern highway programs seeking to safely build close lying divided highways are specifying concrete median barriers. BMF Median Barrier Forms are designed to meet state, interstate and Federal highway program specifications similar in application to the “New Jersey” style median barrier. Our many years of engineering experience and manufacturing ability in producing metal forms for pouring concrete enables us to build median barrier forms to your specifications with the same excellence and high quality materials that has made BMF a by-word in the industry.

- Heavy duty Yokes for positive moment support permit forms to be gang lifted. Yokes are fastened with bolts and nuts.
- The holes in the End Gusses, assure rapid, rigid, accurate alignment.
- Top Flange can be punched with holes for stacking Riser Forms on Barrier Forms.
- Form Face provided with holes for tie rod insertion when necessary.
- Barrier Form Base punched with holes for stacking Barrier Form on Barrier Base Form.

**Median Barrier**

Median Barrier form (similar to New Jersey style) is easily stacked on Barrier base form. This system permits two part base and Barrier pour or monolithic pour.

**Parapet**

When split barrier is required or when only one side will be exposed to traffic (bridge parapet, entrance and exit ramps), a contoured form is replaced by a straight barrier form.
REPAIR PRODUCTS

220 E. General Robinson St.
Pittsburgh, PA 15212
412-321-3217 412-321-6108 fax
156 N. Washington Road
Apollo, PA 15613
724-727-2772
724-727-2033 fax
4589 State Route 422
Pulaski, PA 16143
724-964-8822
724-964-8823 fax
4636 Benedum Drive
Bridgeport, WV
304-592-3217
304-592-3591 fax

BASF
We create chemistry

ARDEX

QUICKRETE
Cement & Concrete Products™
MasterEmaco® T 1060
Very rapid-setting cement-based concrete repair mortar

Formerly 10-60 RAPID MORTAR
MasterEmaco® Repair Mortar is a one-component shrinkage-compensated very rapid-setting cement-based mortar. It is designed for horizontal concrete surfaces where high early strength gain is required.

PRODUCT HIGHLIGHTS:

- Extra low permeability helps minimize chloride intrusion
- Very rapid-setting, structures can be opened to vehicular traffic in 1 hour
- Low residual moisture, can be coated in as little as 4 hours
- Excellent resistance to freeze/thaw cycling. Shrinkage compensated, minimizing cracking from drying shrinkage reducing stress at the bond line
- Can be extended up to 100% by weight providing higher yields
- Proprietary cement blend bonds to carbonated and noncarbonated concrete substrates

APPLICATIONS:

- Applications requiring high early-strength gain
- Structural concrete repairs
- Partial and full-depth repairs
- Horizontal surfaces
- Interior and exterior

PACKAGING:

- 50 lb polyethylene-lined bags
- 3,000 lb bulk bags

YIELD:

- 0.43 ft³ per 50 lb
  - When extended 50%: 0.57 ft³
  - When extended 100%: 0.77 ft³

Compressive strength, psi (MPa)

<table>
<thead>
<tr>
<th>Compressive strength, psi (MPa)</th>
<th>ASTM C109</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” cubes</td>
<td></td>
</tr>
<tr>
<td>1 hr</td>
<td>2,000(14)</td>
</tr>
<tr>
<td>1 day</td>
<td>4,000(28)</td>
</tr>
<tr>
<td>28 days</td>
<td>8,000(55)</td>
</tr>
<tr>
<td>Compressive strength, psi (MPa)</td>
<td></td>
</tr>
<tr>
<td>3” by 6” cylinders at 28 days</td>
<td>7,400(51)</td>
</tr>
</tbody>
</table>

*PennDOT Approved*
MasterEmaco® T 1061
Very rapid-setting cement-based concrete repair mortar

Formerly 10-61 RAPID MORTAR
MasterEmaco T 1061 is a one-component shrinkage-compensated cement-based mortar with an extended working time. It is designed for repairing horizontal concrete surfaces.

PRODUCT HIGHLIGHTS:
- Extended working time
- Extra low permeability helps minimize chloride intrusion
- Rapid-setting for quick turn-around repairs
- Low residual moisture, can be coated in as little as 6 hours
- Excellent resistance to freeze/thaw cycling
- Shrinkage compensated, minimizing cracking from drying shrinkage reducing stress at the bond line
- Can be placed neat up to 2” thickness
- Can be extended up to 100% by weight providing higher yields
- Proprietary cement blend bonds to carbonated and noncarbonated concrete substrates

APPLICATIONS:
- Interior and exterior
- Horizontal surfaces
- Applications requiring high early-strength gain
- Structural concrete repairs
- Partial and full-depth repairs

PACKAGING:
50 lb polyethylene-lined bags
2,500 lb bulk bags

YIELD:
0.43 ft³ per 50 lb.
- When extended 50%: 0.57 ft³
- When extended 100%: 0.77 ft³

![MasterEmaco T 1061 mortar bag]

Compressive strength, psi (MPa) | ASTM C109
--- | ---
2” cubes |  
3 hr | 3,000(21)  
1 day | 4,000(28)  
28 days | 8,000(55)  

Compressive strength, psi (MPa) | ASTM C39
--- | ---
3” by 6” cylinders at 28 days | 7,400(51)  

PennDOT Approved

Repair Products
MasterEmaco® S 466CI
Flowable structural-repair concrete with integral corrosion inhibitor

Formerly EMACO S66CI

MasterEmaco S 466CI is a flowable, shrinkage-compensated repair concrete. It is designed for large volume repairs, including structural elements in applications from 1” to full depth. It has a unique formulation that provides excellent bond, resistance to sulfates and chlorides, high electrical resistivity, low permeability, high-compressive strengths, and protection from corrosion.

PRODUCT HIGHLIGHTS:
- Very low chloride permeability and an integral corrosion inhibitor protects reinforcing steel
- Only requires the addition of potable water  High compressive strength
- Excellent freeze/thaw resistance for durability in cold, wet environments
- Abrasion resistant for repairs requiring protection from vehicular traffic
- Flowability makes it ideal for placement by pumping or pouring into congested locations
- Shrinkage compensated, minimizing cracking from drying shrinkage reducing stress at the bond line

APPLICATIONS:
- Interior and exterior
- Large volume structural repairs
- Repair or replacement of concrete elements

PACKAGING:
50 lb polyethylene-lined bags
3,000 lb bulk bags

YIELD:
0.43 ft³ per 50 lb.

TYPICAL PROPERTIES:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULTS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength</td>
<td></td>
<td>ASTM C109</td>
</tr>
<tr>
<td>1 Day Psi (MPa)</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>7 Day Psi (MPa)</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>28Day Psi (MPa)</td>
<td>8,000</td>
<td></td>
</tr>
</tbody>
</table>

PennDOT Approved
MasterEmaco® S 488CI
Sprayable, fiber-reinforced structural repair mortar with integral corrosion inhibitor

Formerly EMACO S88CI

MasterEmaco S 488CI repair mortar is a one-component, shrinkage-compensated, fiber-reinforced product that contains an integral corrosion inhibitor. It can be applied vertically or overhead by low-pressure spraying or hand troweling.

PRODUCT HIGHLIGHTS:
- Only requires the addition of potable water
- Achieves a tenacious bond to substrate without the need for an bonding agent
- Low-pressure sprayability improves placement speed and minimizes rebound for low waste
- Sulfate-resistant and freeze/thaw durable for use in harsh environments
- Very low chloride permeability and an integral corrosion inhibitor protects reinforcing steel
- High early and ultimate compressive, flexural, and bond strengths for long-lasting, durable repairs
- Low shrinkage produces stable, durable bond  ANSI/NSF 61 certified for drinking water systems

APPLICATIONS:
- Interior and exterior
- Vertical and overhead
- Severe service environments such as sewer, lift stations, marine structures, and water collection

PACKAGING:
- YIELD:
  50 lb polyethylene-lined bags
  3,000 lb bulk bags
  0.43 ft³ per 50 lb.

TYPICAL PROPERTIES:
- Working time, min 45
- Set times, hours
  (ASTM C 266)
  Initial set <4 hours
  Final set <6 hours

<table>
<thead>
<tr>
<th>Compressive Strength</th>
<th>1 Day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Psi(MPa)</td>
</tr>
<tr>
<td></td>
<td>Psi(MPa)</td>
</tr>
<tr>
<td>3,500 (24.1)</td>
<td>6,600 (45.5)</td>
</tr>
</tbody>
</table>

ASTM C 157, modified²

PennDOT Approved

Repair Products
MasterEmaco® S 440

Pourable and pumpable pre-extended self-consolidating repair mortar

Formerly LA40 REPAIR MORTAR

MasterEmaco S 440 is a one-component, shrinkage-compensated, self-consolidating repair mortar. It is designed for large volume repairs, including structural elements in applications from 2” to full depth.

PRODUCT HIGHLIGHTS:
• Dual expansion system compensates for shrinkage in plastic and hardened states
• High early strength allows early form removal
• Low permeability protects against carbon dioxide and chloride intrusion
• Excellent freeze/thaw resistance for durability in cold, wet environments
• Flowability makes it ideal for placement by pumping or pouring into congested locations
• Self-consolidation minimizes honeycombing without vibration

APPLICATIONS:
• Interior and exterior
• Large volume structural repair
• Repair or replacement of concrete elements

PACKAGING:
50 lb polyethylene-lined bags

YIELD:
0.43 ft³ per 50 lb.

<table>
<thead>
<tr>
<th>Compressive strength, psi (MPa)</th>
<th>ASTM C109</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” cubes</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td>2,500 (14)</td>
</tr>
<tr>
<td>7 day</td>
<td>5,000 (28)</td>
</tr>
<tr>
<td>28 days</td>
<td>6,000 (55)</td>
</tr>
</tbody>
</table>

Compressive strength, psi (MPa)

| 3” by 6” cylinders at 28 days | 5,000 | ASTM C 39 |

Repair Products
MasterEmaco® S 440 MC
Flowable micro concrete

Formerly LA REPAIR MORTAR

MasterEmaco S 440MC is a one-component, shrinkage-compensated micro concrete. It is designed for large volume structural repairs from 3/4” to full depth.

PRODUCT HIGHLIGHTS:
• Dual expansion system compensates for shrinkage in plastic and hardened states
• High early strength allows early form removal
• Low permeability protects against carbon dioxide and chloride intrusion
• Excellent freeze/thaw resistance for durability in cold, wet environments
• Flowability makes it ideal for placement by pumping or pouring into congested locations
• Self-consolidation minimizes honeycombing without vibration
• Only requires the addition of potable water
• High bond strength for self-bonding to SSD concrete substrates

APPLICATIONS:
• Interior and exterior
• Large volume structural repairs
• Repair or replacement of concrete elements

PACKAGING:
50 lb polyethylene-lined bags

<table>
<thead>
<tr>
<th>Compressive strength, psi (MPa)</th>
<th>ASTM C109</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” cubes</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td>2,500 (17.2)</td>
</tr>
<tr>
<td>7 day</td>
<td>6,000 (41.4)</td>
</tr>
<tr>
<td>28 days</td>
<td>7,500 (51.7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compressive strength, psi (MPa)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3” by 6” cylinders at 28 days</td>
<td>6,700 (46.2)</td>
</tr>
</tbody>
</table>

YIELD:
0.44 ft³ per 50 lb.

SUBSTRATES:
Concrete
MasterEmaco®
T545 and T545 HT
Very rapid-setting chemical action mortar

Formerly SET 45 and SET 45 HW
MasterEmaco T 545 is a one-component magnesium phosphate-based mortar.
Offered in two formulations: T 545 for ambient and substrate temperatures below 85° F and T 545 HT for ambient & substrate temperatures ranging from 85 to 100° F.

PRODUCT HIGHLIGHTS:
- Single component to just add water and mix
- Reaches 2,000 psi compressive strength in 1 hour to rapidly return repairs to service
- Takes rubber tire traffic in 45 minutes
- Wide temperature use range from below freezing to hot weather exposures
- Very low drying shrinkage for improved bond to concrete for repair and anchoring applications
- Resistant to freeze/thaw cycles and deicing chemicals so it is usable in most environments
- Air cure only, no wet curing compounds required  Coefficient of thermal expansion similar to Portland cement concrete for more permanent repairs
- Higher sulfate resistance than conventional mortars

APPLICATIONS:
- Interior and exterior
- Horizontal and formed vertical or overhead repairs
- Applications requiring high early-strength gain
- Structural concrete repairs
- Partial and full-depth repairs
- Cold temperature repairs
- Grouting applications such as anchor bolts, rebar, dowel rods and precast applications

YIELD:
A 50 lb bag of mixed with the required amount of water produces a volume of approximately 0.39 ft³;  60% extension using 1/2” rounded, sound aggregate produces approximately 0.58 ft³.

SURFACE PREPARATION:
1. Concrete must be structurally sound and fully cured (28 days).
2. Saw cut the perimeter of the area being repaired into a square with a minimum depth of 1/2”
3. The surface to be repaired must be clean, strong and roughened to a CSP of 8–9 following ICRI Guideline no. 310.2 to permit proper bond.
4. Any surface carbonation in the repair area will inhibit chemical bonding. Apply a pH indicator to the prepared surface to test for carbonation. If carbonation is present, abrade surface to a depth that is not carbonated.

CURING:
No curing is required, but protect from rain immediately after placing. Liquid-membrane curing compounds or plastic sheeting may be used to protect the early surface from precipitation, but never wet cure.

PennDOT Approved
COMMERCIAL GRADE

FASTSET CONCRETE MIX

A high-strength, rapid hardening, pre-blended concrete requiring only the addition of water.

A fast-setting, high early strength concrete designed to build or repair concrete sidewalks, driveways, highways, bridge decks, concrete parking lots and concrete floors. Use at any thickness from 1 1/2" - 24". QUIKRETE® FastSetTM Concrete has less shrinkage than ordinary Portland cement concrete. QUIKRETE® FastSetTM Concrete Mix is available with an integral corrosion inhibitor in cases where maximum corrosion protection is desired. The addition of corrosion inhibitor has no adverse effect on the other physical properties of the product.

YIELD:
Each 70 lb bag of QUIKRETE FastSet™ Concrete Mix will yield approximately 0.52 cu ft of mixed concrete.

<table>
<thead>
<tr>
<th>TABLE 1 TYPICAL PHYSICAL PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting time, ASTM C191</td>
</tr>
<tr>
<td>Final</td>
</tr>
<tr>
<td>Slump, inches (m)</td>
</tr>
<tr>
<td>(per ASTM C928)</td>
</tr>
<tr>
<td>Compressive strength, ASTM C109 modified</td>
</tr>
<tr>
<td>3 hours</td>
</tr>
<tr>
<td>24 hours</td>
</tr>
<tr>
<td>7 days</td>
</tr>
<tr>
<td>28 days</td>
</tr>
<tr>
<td>Slant shear bond strength, ASTM C928</td>
</tr>
<tr>
<td>1 day</td>
</tr>
<tr>
<td>7 days</td>
</tr>
<tr>
<td>Shrinkage, ASTM C928</td>
</tr>
<tr>
<td>28 days in air (typical)</td>
</tr>
<tr>
<td>28 days in wather (typical)</td>
</tr>
</tbody>
</table>
SHOTCRETE

QUIKRETE® Shotcrete Mixes are specially designed for machine applications to repair above- or below-grade concrete and mortar.

QUIKRETE® Shotcrete Mixes are structural repair materials for bridges, tunnels, parking garages, ramps, beams, piers, sewer pipes and dams. They can be used for structural concrete in vertical, horizontal and overhead surfaces. QUIKRETE® Shotcrete is a well proportioned blend of Portland cement and concrete sand suitable for general-use construction. Shotcrete MS is a 1-component, dry process shotcreting material containing microsilica. Advantages include high strength, improved sulphate resistance, high adhesion, low permeability, low rebound and low sag. Shotcrete MS can be placed at a greater single pass thickness than conventional shotcrete. Other performance levels are also available to meet specific jobsite requirements, including coarse aggregate versions.

SIZES: Shotcrete products are packaged in both 3000 lb. bulk bags & 50 lb. bags.

YIELD: Applied at ½” thickness, each 50 lb. bag will cover approximately 9 ft².

Advantages of Shotcrete

A total of 116- 3,000 LB bulk bags of QUIKRETE® Shotcrete MS pre-blended with a migrating corrosion inhibitor were used in conjunction with a silo system.

QUIKRETE® Shotcrete MS is a well-proportioned blend of Portland cement and graded sand specially designed for making above- or below-grade structural concrete repairs. QUIKRETE® Shotcrete MS is a one-component, pneumatically applied, dry process shotcrete material containing microsilica that was designed for high strength, improved sulphate resistance, high adhesion, low permeability, low rebound and low sag.

“QUIKRETE® Shotcrete MS is the perfect solution for a project like the Noblestown Road bridge repair,” Bittner said. “Crews used a material that was well-suited for their needs and let them finish work as quick as possible. This bridge repair is one that will last for many years to come and will help ensure that commuters travel safely in and around Pittsburgh.”

<table>
<thead>
<tr>
<th>TABLE 1 TYPICAL PHYSICAL PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shotcrete</td>
</tr>
<tr>
<td>Compressive strength, ASTM C109</td>
</tr>
<tr>
<td>1 day</td>
</tr>
<tr>
<td>7 days</td>
</tr>
<tr>
<td>28 days</td>
</tr>
</tbody>
</table>

PennDOT Approved
COMMERCIAL GRADE FASTSET
REPAIR MORTAR

QUICKRETE® Commercial Grade FastSet Repair Mortar is a rapid setting repair material specially formulated to make structural repairs to any concrete or masonry surface.

QUICKRETE® Commercial Grade FastSetTM Repair Mortar demonstrates low sag, making it ideal for vertical or overhead repairs.

QUICKRETE® FastSetTM Repair Mortar is available with integral corrosion inhibitor in cases where maximum corrosion protection is desired. The addition of corrosion inhibitor has no adverse effect on the other physical properties of the product. This product can be built up to at least 1 1/2” in one application. Its unique properties allow the user to actually sculpt the material during application. Use to repair concrete cracks, curbs, steps, prestressed panels, pipe, tunnels, sewers, loading docks, silos, retaining walls, culverts, catch basins, decorative moldings, bridge columns, parapet walls, septic tanks, cold storage vaults, virtually any vertical or overhead concrete surface.

YIELD:
Each 60 lb. bag of QUICKRETE® FastSet Repair Mortar will yield 0.54 cu ft of material.

QUICKRETE® FastSet Repair Mortar can be extended with up to 30 lb. of -1/2” maximum size aggregate per 60# bag for deep repairs.

<table>
<thead>
<tr>
<th>TABLE 1 TYPICAL PHYSICAL PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting time, ASTM C191</td>
</tr>
<tr>
<td>Initial</td>
</tr>
<tr>
<td>Final</td>
</tr>
<tr>
<td>Compressive strength, ASTM C109 modified</td>
</tr>
<tr>
<td>3 hours</td>
</tr>
<tr>
<td>24 hours</td>
</tr>
<tr>
<td>7 days</td>
</tr>
<tr>
<td>28 days</td>
</tr>
</tbody>
</table>

PennDOT Approved
SPEED CRETE RED LINE

A rapid-setting, cement-based concrete and masonry repair mortar. SPEED CRETE RED LINE is a proprietary formulation of blended portland cements, finely processed selected aggregates, and specific chemical additives that undergo a chemical “hyper hydration” and produces a stable, low permeability, cementitious matrix. SPEED CRETE RED LINE can be “shaved” for detailed repairs.

PRIMARY APPLICATIONS:

- Interior and exterior
- Vertical, overhead and horizontal repairs
- Used at no slump consistency
- Outstanding repair material for concrete pipe, curbs, sidewalks, formed and precast concrete

FEATURES / BENEFITS:

- Initial set in 8 to 10 minutes
- Final set within 20 minutes
- Can be “shaved” to desired shape
- High strength
- Excellent durability
- Compatible with galvanic anodes

COVERAGE:

One 50 lb bag yields approx. 0.47 ft³ when mixed with 5.5 qt water.
TAMMSPATCH II

TAMMSPATCH II is a two-component, polymer-modified, cementitious repair mortar and flowable underlayment. When the two components are combined, TAMMSPATCH II becomes a versatile mortar for numerous applications, due to its ability to be mixed at different consistencies.

From flowable to firm, TAMMSPATCH II provides an aesthetically pleasing surface in multiple applications.

**PRIMARY APPLICATIONS:**
- Resurfacing worn concrete walkways
- Trowelable repair mortar
- Decorative overlays
- Horizontal or vertical repairs
- Pointing mortar joints
- Flowable underlayment

**FEATURES / BENEFITS:**
- Featheredge to 1” per lift neat, 2.5” if extended
- Highly durable
- High strength
- Outstanding bond strength
- User friendly
- USDA compliant

**YIELD:**
TAMMSPATCH II Part A (powder) is packaged in a 45 lb bag. Part B (liquid) is packaged in a 1 gal jug. A mixed unit will yield approximately 0.42 ft³.

---

**Material Properties at 75°F (24°C)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>ASTM Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Set, hrs.</td>
<td>approx. 1.5 to 3</td>
<td></td>
</tr>
<tr>
<td>Final Set, hrs.</td>
<td>approx. 4 to 5</td>
<td></td>
</tr>
<tr>
<td>Compressive Strength, psi (MPa)</td>
<td>3,800 (28.2)</td>
<td>ASTM C 109</td>
</tr>
<tr>
<td>Direct Tensile Strength, psi (MPa)</td>
<td>525 (3.6)</td>
<td>ASTM C 1563</td>
</tr>
<tr>
<td>Flexural strength, psi (MPa)</td>
<td>600 (4.1)</td>
<td>ASTM C 348</td>
</tr>
<tr>
<td>Bond strength, psi (MPa)</td>
<td>950 (6.6)</td>
<td>ASTM C 882</td>
</tr>
<tr>
<td>Shrinkage, %</td>
<td>0.023%</td>
<td>ASTM C 157</td>
</tr>
<tr>
<td>Freeze thaw durability factor</td>
<td>91.0%</td>
<td>ASTM C 660</td>
</tr>
</tbody>
</table>

---

**Repair Products**
TAMMS THIN PATCH

TAMMS THIN PATCH is a polymer-modified, cement based mortar formulated for repairing defects in concrete and masonry surfaces from featheredge up to 1”.

PRIMARY APPLICATIONS:
- Horizontal, vertical or overhead repairs
- Interior and exterior use
- Fill small holes, honeycomb and spalled areas
- Repoint mortar joints

FEATURES / BENEFITS:
- Single-component
- Trowelable repair mortar
- Long-term durability
- Outstanding bond strength
- High strength

COVERAGE:
A 50 lb bag of TAMMS THIN PATCH will yield approximately 0.4 ft³ of material. Applied at the following thicknesses, one 50 lb bag of TAMMS THIN PATCH will cover:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>19.2 ft²</td>
</tr>
<tr>
<td>1/2”</td>
<td>9.6 ft²</td>
</tr>
<tr>
<td>1”</td>
<td>4.8 ft²</td>
</tr>
</tbody>
</table>

Coverage rates are approximate and are for estimating purposes only.
HD 25 VO
Vertical/Overhead Repair Mortar

HD 25 VO is a high strength mortar containing portland cement, special polymers and accelerators to provide an accelerated strength gain and set time. HD 25 VO is a single component, fiber enhanced trowelable material formulated for vertical and overhead repairs of concrete. HD 25 VO is a specially formulated dry, cementitious product that needs only water for mixing.

USE:
HD 25 VO is a polymer modified mortar that can be used for vertical and overhead repairs of concrete structures. HD 25 VO can be used inside or outside and above or below grade. It can be used as a structural repair for bridges, tunnels, parking structures, dams, walls, columns, etc. It is an excellent repair material for precast concrete products, such as pipes, beams and steps.

FEATURES:
- Ideal for vertical and overhead applications
- Built in bonding agent/polymer modified
- Can be shaped and molded
- Fast setting, 4,000 psi (27.6 MPa) in 24 hrs.
- One component, just add water
- Excellent bond strength
- Shrinkage compensated
- Compatible with the thermal expansion of concrete

PROPERTIES:
Set Times: ASTM C-266@ 72° F
Initial Set: 20 minutes
Final Set: 30 minutes

<table>
<thead>
<tr>
<th>Compressive Strength - ASTM C-109</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Hours</td>
</tr>
<tr>
<td>at 72° F</td>
</tr>
<tr>
<td>3,400 psi (20.7 MPa)</td>
</tr>
<tr>
<td>1 Day</td>
</tr>
<tr>
<td>4,200 psi (28.3 MPa)</td>
</tr>
<tr>
<td>7 Days</td>
</tr>
<tr>
<td>5,700 psi (37.9 MPa)</td>
</tr>
<tr>
<td>28 Days</td>
</tr>
<tr>
<td>6,900 psi (44.8 MPa)</td>
</tr>
</tbody>
</table>

ESTIMATING GUIDE:
YIELD:
Approx. 0.46 cu. ft./50 lb.

PennDOT Approved
HD 50
Horizontal Repair Mortar

HD 50 is a fast setting, fiber reinforced, latex-modified, heavy duty, one component concrete repair material requiring only water to mix and apply. HD 50 is a cement based compound having similar characteristics to normal portland cement mixes and is compatible with portland cement concrete.

USE:
HD 50 is designed for the repair of heavy duty surfaces such as concrete highways, bridge decks, parking structures, airport runways, freezer rooms, industrial and warehouse floors, and loading docks. HD 50 is a stiff yet flowable material that may be poured into place for horizontal applications or into formed vertical and overhead applications.

FEATURES:
- Can be opened to use or traffic within 60 minutes.
- High compressive strength quickly – over 2,000 psi in one hour.
- Resists salt penetration and damage from freeze/thaw cycles.
- Contains no chlorides or magnesium phosphate.
- Non Corrosive.
- Compatible with portland cement concrete.
- Aggregate extension – Up to 60% on repairs greater than

PROPERTIES:

<table>
<thead>
<tr>
<th>Compressive Strength - ASTM C-109</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hour</td>
</tr>
<tr>
<td>3 Hours</td>
</tr>
<tr>
<td>at 75°F</td>
</tr>
<tr>
<td>2000 psi (13.8 MPa)</td>
</tr>
<tr>
<td>3500 psi (24.1 MPa)</td>
</tr>
<tr>
<td>1 Day</td>
</tr>
<tr>
<td>7 Days</td>
</tr>
<tr>
<td>28 Days</td>
</tr>
<tr>
<td>6145 psi (42.4 MPa)</td>
</tr>
<tr>
<td>7000 psi (48.2 MPa)</td>
</tr>
<tr>
<td>7990 psi (55.1 MPa)</td>
</tr>
</tbody>
</table>

YIELD:
- 0.42 cu. ft. /50 lb.
- 0.60 cu. ft. /50 lb. bag with 60% extension, 30 lbs. with 3/8 in. pea gravel.
LEVEL TOPPING™
EXTERIOR
Chemicals | Powders | Floor Levelers

Level Topping™ Exterior is a premium cement based, nonshrink, self-leveling topping designed for leveling horizontal concrete. Level Topping Exterior only requires the addition of water to produce a flowable mixture that can be poured or pumped onto the floor. Level Topping is not a gypsum based product.

• Topping designed for interior & exterior use
• Portland Cement based
• Walkable in 4 hours
• Drive on it in 24 hours
• Pourable / pumpable
• Excellent bonding
• Non-shrink
• High compressive strength

Level Topping Exterior can be used to resurface sound, properly prepared concrete surfaces. It can be used on new construction projects to correct rough or unfinished concrete and to level uneven concrete slabs.

On restoration projects, use Level Topping Exterior to produce a hard even finish over old concrete. Typical areas of use include walkways, balconies, patios, driveways, garage floors, loading docks, and parking decks. Level Topping Exterior is appropriate for use for foot and rubber wheeled traffic for interior or exterior applications. Walkable in 4 hours; Drive on it in 24 hours; flowable and pumpable for better productivity.

Level Topping Exterior can be applied in thicknesses ranging from 1/4” to 1” neat and up to 3” extended with clean 3/8” pea gravel.

PACKAGING:
50 Lb. Bag
**SikaTop® 122 Plus**

SikaTop 122 PLUS is a two-component, polymer-modified, portland-cement, fast-setting, trowel-grade mortar. It is a high performance repair mortar for horizontal and vertical surfaces and offers the additional benefit of FerroGard 901, a penetrating corrosion inhibitor.

**WHERE TO USE:**
- On grade, above, and below grade on concrete and mortar.
- On horizontal surfaces.
- As a structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, dams, and ramps.
- To level concrete surfaces.
- As an overlay system for topping/resurfacing concrete.
- Overlay in cathodic protection systems.

**ADVANTAGES:**
- High compressive and flexural strengths.
- High early strengths. Opens to traffic fast: foot in 4-6 hours, pneumatic tire in 8-12 hours.
- High abrasion resistance.
- Increased freeze/thaw durability and resistance to deicing salts.
- Compatible with coefficient of thermal expansion of concrete - Passes ASTM C-884 (modified).
- Increased density - improved carbon dioxide resistance (carbonation) without adversely affecting water vapor transmission (not a vapor barrier).
- Enhanced with FerroGard 901, a penetrating corrosion inhibitor - reduces corrosion even in the adjacent concrete.
- Not flammable, non-toxic.
- Conforms to ECA/USPHS standards for surface contact with potable water.
- USDA approved for food industry.
- ANSI/NSF Standard 61 potable water approved.

**YIELD:** 0.51 cu. ft./unit mortar; 0.75 cu. ft./unit concrete; (SikaTop 122 + 42 lbs. 3/8 pea gravel)
SikaTop® 123 Plus

SikaTop 123 PLUS is a two-component, polymer-modified, portland cement, fast-setting, non-sag mortar. It is a high performance repair mortar for vertical and overhead surfaces, and offers the additional benefit of FerroGard 901, a penetrating corrosion inhibitor.

WHERE TO USE:
- On grade, above, and below grade on concrete and mortar.
- On vertical and overhead surfaces.
- As a structural repair material for parking structures, industrial plants, water/waste water treatment facilities, roads, walkways, bridges, tunnels, dams, ramps, etc.
- Approved for repairs over cathodic protection systems.

ADVANTAGES:
- High compressive and flexural strengths.
- High early strengths.
- Freeze/thaw durability and resistance to de-icing salts.
- Compatible with coefficient of thermal expansion of concrete - Passes ASTM C-884 (modified).
- Increased density - improved carbon dioxide resistance (carbonation) without adversely affecting water vapor transmission (not a vapor barrier).
- Enhanced with FerroGard 901, a penetrating corrosion inhibitor - reduces corrosion even in the adjacent concrete.
- Not flammable, non-toxic.
- Conforms to ECA/USPHS standards for surface contact with potable water.
- USDA approved.
- ANSI/NSF Standard 61 potable water approved.

YIELD: 0.39 cu. ft./unit.
ARDEX K 15

SELF-LEVELING UNDERLAYMENT

ARDEX K 15 is the most advanced floor underlayment available today. Designed specifically for fast leveling of floors, ARDEX K 15 provides a durable, level and smooth floor surface with minimum labor and installation time. ARDEX K 15 is recommended or specified by many quality flooring manufacturers, architects and contractors.

RANGE OF APPLICATION ARDEX K 15 will level and smooth concrete and other sub floors prior to the installation of resilient flooring, ceramic tile, carpeting, wooden parquet, athletic floors, etc. ARDEX K 15 can be applied at any thickness in a single operation, for indoor installations, above and below grade, including:

New Construction  Rehabilitation Projects  Terrazzo
Unlevel concrete  Quarry and ceramic tile
Rough concrete  Old concrete
Rained-on concrete  Leveling floors over cut-back and other
Frozen concrete  adhesive residues
Unfinished concrete  Steel decking
Camber problems  Old Wooden Floors
Rough-screeded concrete

COVERAGE: A 55 lb. bag covers aprox.
60 sq. ft. at 1/8” thickness,
30 sq. ft. at 1/4”, etc.

Mixing Ratio, parts by volume: 1 part water to 3.5 parts powder

Flowing Time: 10 minutes

Initial Set: ASTM C191
30 minutes at 70°F

Final Set: ASTM C191
2 hours at 70°F

Compressive Strength:
ASTM C109
2630 psi after 1 day
4100 psi after 28 days

Flexural Strength:
ASTM C348
770 psi after 1 day
1000 psi after 28 days

PRODUCT DESCRIPTION  ARDEX K 15 is a special cement blend. When mixed with water, it becomes a liquid compound, which seeks its own level and automatically produces a smooth and flat surface. ARDEX K 15 hardens quickly by hydration and drying. It will not shrink, crack or spall, even when applied in thick layers. Floor coverings can be installed 12 to 16 hours later. ARDEX K 15 is water-resistant. Simple to install. . . high quality . . . most economical method.
ARDEX V 1200
Self-Leveling Underlayment

ARDEX V 1200 is a self-leveling, no troweling, Portland cement-based underlayment with re-dispersible synthetic polymers. Use to level and smooth interior concrete, terrazzo and ceramic tile substrates, as well as nonwater soluble adhesive residue on concrete, prior to the installation of finished flooring on, above or below grade. Pourable or pumpable when mixed with water. Seeks its own level and produces a smooth, flat, hard surface. Walkable in 2 to 3 hours, and most floor covering installations can proceed in 1 to 3 days.

For more detailed information on substrate preparation, please refer to the ARDEX Substrate Preparation Brochure.

THICKNESS OF APPLICATION:
ARDEX V 1200 must be installed at a minimum thickness of 1/8” over the highest point in the floor, which typically results in an average thickness of 1/4” over the entire floor. ARDEX V 1200 can be installed to a maximum of 1 1/4”, and can also be featheredged to match existing elevations.

INSTALLATION OF FLOORING:
ARDEX V 1200 can be walked on 2 to 3 hours after installation. Moisture-insensitive tiles such as ceramic, quarry and porcelain can be installed after 24 hours. Other flooring structures can be installed after approximately 2 to 3 days at 70°F. Drying time will be a function of jobsite temperature and humidity conditions, as well as the installation thickness. While a 1/4” thick installation may be dry enough for some types of floor covering after only a day, additional drying time may be necessary for deeper installations. Adequate ventilation and heat will aid drying.

Technical Data According to ARDEX Quality Standards
All data based on a mixing ratio of 4 parts powder to 1 part water by volume at 70° F

| Mixing Ratio: | 5 qts of water per one 50 lb. bag. |
| Coverage: | 25 sq. ft. per bag at 1/4” |
| Flow Time: | 10 min. |
| Initial Set: (ASTM C191) | Approximately 30 minutes |
| Final Set: (ASTM C191) | Approximately 60 minutes |
| Compressive Strength (ASTM C191)/ Mod - Air cure only) | 4000 psi at 28 days |
| Flexural strength: (ASTM C348) | 1000 psi at 28 days |
| Walkable: | 2 to 3 hours |
| Install Floor: | 1 to 3 days |
| Packaging: | 50 lb net weight bags |
ARDEX Feather Finish smooth-finishes flooring substrates permanently prior to the installation of today’s demanding floor coverings such as sheet vinyl and VCT. The most striking property is that Feather Finish allows the installation of most types of finish flooring in as little as 15 minutes while it is still wet.

ARDEX Feather Finish mixes with water only and spreads easily. As this product has been engineered around a self-drying Portland cement matrix. In this way the floor installation will not experience the problems of disbanding, crumbling, mildew and staining associated with products in the market today, which may ultimately void the flooring manufacturer’s warranty.

RANGE OF APPLICATION - Use ARDEX Feather Finish to smooth ridges, fill cracks, gouges and joints and to provide a true feather edge over concrete, wood, cementitious terrazzo, and ceramic and quarry tile. ARDEX Feather Finish can also be used to smooth directly over cutback and other non-water-soluble adhesive residues in residential applications.

For commercial installations over cutback adhesive residues or in case of an installation requiring a permanent barrier to the migration of oils from the adhesive, use the ARDEX K 15 and E-25 Underlayment System following the recommendations of the Resilient Floor Covering Institute. Do not use ARDEX Feather Finish as embossing filler over cushioned vinyl or other vinyl with a urethane finish.

Feather Finish fills plywood joints, seams and levels out transition areas & ridges at doorways.
Permanently bonds to concrete, wood, terrazzo, ceramic and even quarry tile without priming.

For residential applications, Feather Finish can be installed over old adhesive residues.
Uses a new quick drying process so fast, you can install finished flooring in just minutes!
ARDEX CD FINE
Concrete Dressing

- Resurface worn and spalled concrete to provide a “new concrete” finish
- Easy to apply
- Hardens quickly
- Freeze-thaw resistant
- Suitable for foot & rubber tire traffic on commercial & residential applications
- Use for interior and exterior floors and walls

ARDEX CD FINE™ is a concrete resurfacing compound modified with high-performance polymers for exceptional bond strength. Formulated from a blend of Portland cement and other hydraulic cements, ARDEX CD FINE can be used over the surface of existing concrete to produce a new wear layer as well as to fill in small surface defects, such as spalls and gouges. Ideal for sidewalks, patios, plazas, courtyards, walkways, driveways, parking garages, pool decks and most vertical concrete surfaces. When mixed with water, the result is a creamy, smooth, slurry consistency that can be applied by trowel, squeegee or hopper gun. Once applied, ARDEX CD FINE can be broom textured before it sets for a reduced-slip surface.

THICKNESS OF APPLICATION:
ARDEX CD FINE is to be installed in as thin a layer as can be placed while getting full coverage. Typical installation thickness ranges from 1/32” up to 1/8” and ARDEX CD FINE can be applied at a thickness of up to 1/2” in small, well-defined areas. Please note that thicker areas will take longer to set than a dress coat, and will reduce the overall coverage.

CURING:
Although ARDEX CD FINE requires no special curing procedures, avoid applying this product if rain is expected within 6 to 8 hours or freezing temperatures could occur within 24 hours of application. As with any cementitious material, these conditions can alter the appearance and performance of the dressing.

Technical Data According to ARDEX Quality Standards
All data based on a mixing ratio of 2.75 parts powder to 1 part water by volume at 70°F.

<table>
<thead>
<tr>
<th>Mixing Ratio:</th>
<th>2 1/2 qts. of water per one 20 lb. bag.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage:</td>
<td>Up to 100 sq. ft. per bag at 1/32”</td>
</tr>
<tr>
<td></td>
<td>Up to 50 sq. ft. per bag at 1/16”</td>
</tr>
<tr>
<td></td>
<td>Application methods and the texture of the concrete being coated will affect these rates.</td>
</tr>
<tr>
<td>Working Time:</td>
<td>Approximately 10 - 15 minutes</td>
</tr>
<tr>
<td>Walkable:</td>
<td>Approximately 2 hours.</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>4000 psi at 28 days</td>
</tr>
<tr>
<td>(ASTM C109)/ Mod - Air cure only)</td>
<td></td>
</tr>
<tr>
<td>Packaging:</td>
<td>20 lb net weight bags</td>
</tr>
</tbody>
</table>
ARDEX CD
Concrete Dressing

ARDEX CD™ is a concrete resurfacing compound modified with high-performance polymers for exceptional bond strength. Formulated from a blend of Portland cement and other hydraulic cements, ARDEX CD can be used over the surface of existing concrete to produce a new wear layer as well as to fill in small surface defects, such as spalls and gouges. Ideal for sidewalks, patios, plazas, courtyards, walkways, driveways, parking garages, pool decks and vertical concrete surfaces. When mixed with water, the result is a creamy, smooth, slurry consistency that can be applied by trowel, squeegee or hopper gun. Once applied, ARDEX CD can be broom textured before it sets for a reduced-slip surface.

PRIMING:
No priming is required over standard absorbent concrete. However, to minimize the potential for pinholes forming in ARDEX CD installed over highly absorbent concrete, as well as to increase the working time of the ARDEX CD, the concrete can first be primed with ARDEX CG™ Concrete Guard™ diluted 1:1 with water. Allow the primer coat to dry thoroughly (min. 3 hours depending upon jobsite conditions) and proceed with the installation of ARDEX CD using the normal installation practices outlined below.

THICKNESS OF APPLICATION:
ARDEX CD is to be installed in as thin a layer as can be placed while getting full coverage. Typical installation thickness ranges from 1/16” up to 1/8”, and ARDEX CD can be applied at a thickness of up to 1/2” in small, well-defined areas. Please note that thicker areas will take longer to set than a dress coat, and will reduce the overall coverage.

WEAR SURFACES:
As is the case with all concrete surfaces, ARDEX CD should be sealed with a waterborne, breathable concrete sealer to prevent dusting and to help resist damage from standing water, salt and oil, as well as staining and marking. ARDEX CD can be sealed as soon as the dressing hardens sufficiently to work on without damaging the surface. ARDEX recommends the use of ARDEX CG.

TECHNICAL DATA:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength (ASTM C109)/ Mod - Air cure only</td>
<td>4000 PSI (27.6 N/mm²) at 28 days</td>
</tr>
<tr>
<td>Pot life</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Working Time</td>
<td>Approx. 10 - 15 minutes</td>
</tr>
<tr>
<td>Walkable</td>
<td>Approx. 2 hours</td>
</tr>
<tr>
<td>Install Waterborne Coating</td>
<td>When hard (approx. 2 hours)</td>
</tr>
</tbody>
</table>

Repair Products
ARDEX CP
Concrete Patch

ARDEX CP™ is a trowel-grade, cementitious topping for filling and repairing areas of indoor and outdoor concrete above, on or below grade. Engineered with Portland cement and select high-performance polymers, ARDEX CP readily bonds to concrete surfaces. It is easy to apply, hardens quickly, is freeze-thaw resistant, and produces a surface finish that is suitable for foot and rubber tire traffic. When mixed with water, the result is a creamy, smooth consistency that can be applied by trowel or screed.

Use ARDEX CP to fill spalls, gouges, dormant cracks, “bird-baths” and other low areas in existing concrete surfaces, including sidewalks, patios, plazas, courtyards, walkways, driveways, parking garages, pool decks and vertical concrete surfaces. ARDEX CP can also be used to re-form concrete steps and curbs, to create ramps over existing concrete, or to resurface vertical concrete substrates. Once applied and allowed to dry properly, ARDEX CD™, ARDEX CD FINE™ CONCRETE DRESSING or ARDEX CG™ CONCRETE GUARD™ can be installed over the patched area, as well as over adjacent concrete, to create a uniform appearance. ARDEX CP is recommended for residential and commercial applications.

THICKNESS OF INSTALLATION:
ARDEX CP can be installed from 1/4” to 2” neat, and up to 2” with the addition of proper aggregate. For areas thicker than 2”, mix ARDEX CP with washed and well-graded 1/8” to 4” pea gravel. Mix the ARDEX CP with water first, and then add 1 part by volume of aggregate, mixing until the aggregate is completely coated. Do not use sand. If aggregate is wet, reduce the amount of water to avoid over watering. Please note that thicker areas will take longer to set and will reduce the overall coverage.

CURING:
Although ARDEX CP requires no special curing procedures, avoid applying this product if rain is expected within 6 to 8 hours, or if freezing temperatures could occur within 24 hours of application. As with any cementitious material, the above conditions can alter the appearance and performance of the patching compound. ARDEX CP can receive light foot traffic after approximately 2 hours.

<table>
<thead>
<tr>
<th>Compressive Strength (ASTM C109/mod - Air cure only):</th>
<th>3600 psi at 28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Time:</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Pot Life:</td>
<td>30 minutes</td>
</tr>
<tr>
<td>walkable:</td>
<td>Light foot traffic in 2 hours</td>
</tr>
<tr>
<td>Coat or Seal:</td>
<td>Apply ARDEX CD in 4 hours</td>
</tr>
<tr>
<td></td>
<td>Apply ARDEX CG in 24 hours</td>
</tr>
</tbody>
</table>
ARDEX MC Rapid
One-Coat Moisture Control System
for Concrete to Receive ARDEX products

- One-coat epoxy resin system
- For RH readings up to 100%
- Excellent coverage
- Fast setting - Proceed in as little as 4 hours
- No sand broadcast required for underlayment applications of 1/4” or less
- Reduces moisture vapor emissions to acceptable levels for floor coverings
- Solvent free, alkali resistant
- ASTM E96 - 0.06 perms
- Tenacious bond to substrate
- Use under all standard commercial and residential floor coverings on interior substrates only
- Use under all ARDEX interior toppings (sand broadcast method only)

The ARDEX MCTM RAPID Moisture Control System is a one-coat, 100% solids epoxy moisture management system formulated to suppress excessive moisture vapor emissions in new or existing concrete prior to installing an ARDEX underlayment with flooring or an ARDEX topping with sealer. It is especially suited to treat areas of new concrete in critical installations, such as health care and institutional applications where the construction schedule does not allow adequate drying of the concrete. ARDEX MC RAPID is also recommended over existing concrete where the level of moisture emissions from the slab exceeds the maximum allowed by the manufacturer of the finished floor covering or sealer. Designed specifically for fast-track installations, ARDEX MC RAPID can receive an ARDEX underlayment or topping in as little as 4 hours. The ARDEX MC RAPID system is based on a reactive epoxy that produces a hard surface and tenaciously bonds to the substrate. Once cured, ARDEX MC RAPID is able to reduce any level of moisture emissions to an acceptable level, even over new concrete that is only 3 - 7 days old as a part of the ARDEX Concrete Management Systems™ (ACMSTM).

| Mixing Ratio | Add entire pre-measured contents of Part B (Hardener) into Part A (Resin). |
| Coverage:    | 10 mills: Approx 250 - 270 sq. ft. per mixed unit of ARDEX MC RAPID. Approx. 150 - 165 sq. ft. per gal. |
| Permeability (ASTM E96) | 0.-6 perms |
| Working Time | 20 minutes |
| Pot Life     | ARDEX MC RAPID is a fast-setting material; after mixing, immediately pour into the substrate and apply |
ARDEX EP 2000
Substrate Preparation Epoxy Primer

- Two-component epoxy preparation material for the installation of ARDEX underlayments and toppings Primer for concrete and non-porous substrates such as terrazzo and epoxy coatings
- Required primer for decorative applications of ARDEX self-leveling toppings
- Helps to minimize cracking in underlayments and toppings
- Can be used as crack filling material
- Can be used to provide secondary top-down waterproofing Solvent-free, low viscosity, 100% solids epoxy resin
- Receives sand broadcast
- Use for interior and exterior substrates

ARDEX EP 2000™ is a solvent-free, low viscosity, two-component, 100% solids epoxy resin primer formulated for use with ARDEX underlayments and toppings. It is especially suited to prime concrete and other structurally sound and solid substrates, including terrazzo, epoxy coatings and ceramic and quarry tile, prior to installing ARDEX products.

ARDEX EP 2000 is the required primer for the following ARDEX flooring systems: ARDEX Designer Floors™ using ARDEX SD-T™ Self-Drying, Self-Leveling Concrete Topping; the ARDEX Polished Concrete System (APCS) using ARDEX PC-T™ Polished Concrete Topping; and ARDEX PANDOMO® Floor and FloorPlus Systems using ARDEX PANDOMO® CF1 Commercial Design Leveling Compound, ARDEX PANDOMO® CF3 Commercial Design Leveling Compound, ARDEX PANDOMO® K1 Design Leveling Compound and ARDEX PANDOMO® K3 Design Leveling Compound.

A highly reactive epoxy, ARDEX EP 2000 produces an extremely hard surface and bonds tenaciously to the substrate to help minimize cracking in the ARDEX underlayment or topping. ARDEX EP 2000 is applied in one coat that will receive a sand broadcast layer. It can also be used as a crack filling material prior to the installation of ARDEX cements.

<table>
<thead>
<tr>
<th>Mixing Ratio</th>
<th>Add entire pre-measured contents of Part B (Hardener) into Part A (Resin).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage:</td>
<td>Approx. 150 to 200 sq. ft. per mixed unit of ARDEX EP 2000 (will vary with surface profile)</td>
</tr>
<tr>
<td>Working Time</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Pot Life</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>VOC:</td>
<td>0 g/L, calculated and reported SCAQMD 1113</td>
</tr>
<tr>
<td>Packaging:</td>
<td>10 lb. unit</td>
</tr>
</tbody>
</table>

Repair Products
ARDEX P 51
Primer

- For absorbent concrete, wood*, gypsum* and non-water-soluble adhesive residue on concrete* Concentrated primer - dilutes with water
- Seals the substrate
- For bonding ARDEX underlayments and toppings to appropriate substrates
- For interior use only

ARDEX P 51™ is a solvent-free primer for the installation of ARDEX underlayments and toppings over absorbent concrete. *For specialized applications and with select underlayments, ARDEX P 51 also can be used for priming wood, gypsum and non-water soluble adhesive residue over concrete. Non-porous substrates, burnished concrete, non-absorbent terrazzo, quarry and ceramic tile and epoxy coatings must be primed with ARDEX P 82™ Ultra Prime. Please refer to the ARDEX technical brochure for more information.

SUBSTRATE PREPARATION:
For specific substrate preparation requirements for each ARDEX product, please refer to the individual technical brochures. All substrates must be structurally sound, solid, thoroughly clean and free of oil, wax, grease, asphalt and any other contaminant that might act as a bond breaker. For further information, please refer to the ARDEX Substrate Preparation Brochure.

MIXING AND APPLICATION
As some settling will occur, shake, stir or mix the ARDEX P 51 prior to use to ensure that all components that have settled are in full suspension.
Standard absorbent concrete must be primed with ARDEX P 51 diluted 1:1 with water. Apply evenly with an exploded-tip stiff bristle broom. Do not use paint rollers, or spray equipment. Do not leave any bare spots. Brush off puddles and excess primer. Allow primer to dry to a clear, thin film (min. 3 hours, max. 24 hours).

<table>
<thead>
<tr>
<th>Mixing Ratio</th>
<th>For standard absorbent concrete: 1 part primer to 1 part water by volume. For extremely absorbent concrete: 1 part primer to 3 parts water by volume for initial application, then 1:1 for second application.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage:</td>
<td>400 - 600 sq. ft. (37 - 55 sq. m)</td>
</tr>
<tr>
<td>Drying Time</td>
<td>Min. 3 hours; max. 24 hours</td>
</tr>
<tr>
<td>Pot Life</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>VOC:</td>
<td>0 g/L, calculated</td>
</tr>
</tbody>
</table>
MASTERFLOW 100
Formerly Construction Grout

MasterFlow 100 is a non-catalyzed, multi-purpose construction grout containing mineral aggregate.

PRODUCT HIGHLIGHTS:

- Concrete gray color (after curing) blends in with surrounding concrete
- No accelerators, including chlorides or other similar salts, will not contribute to corrosion of reinforcing steel
- Can be extended with clean, well-graded coarse aggregate to fill large voids
- Hardens free of bleeding when properly placed and yields a high effective bearing area for proper support and load transfer.

APPLICATIONS:

- Interior and exterior
- Normal loads for columns and baseplates
- Bedding grout for precast panels
- Repairing of cavities resulting from ineffective concrete consolidation
- Caulking concrete pipe
- Backfilling, underpinning foundations, and pressure grouting of slabs needing alignment
- General construction applications
- Damp pack applications

SUBSTRATES

- Concrete

YIELD:

One 50 lb. bag of MasterFlow 100 mixed with 1.07 gallons of water (flowable mix) provides approximately 0.45 ft³ of mixed grout.

<table>
<thead>
<tr>
<th>Property</th>
<th>Results</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength, psi (MPa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic¹</td>
<td>3,500 (24.0)</td>
<td>ASTM C 109, as modified by ASTM C 1107</td>
</tr>
<tr>
<td>Consistency Flowable²</td>
<td>2,000 (13.8)</td>
<td></td>
</tr>
<tr>
<td>Fluid³</td>
<td>1,500 (10.3)</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td>6,000 (41.4)</td>
<td></td>
</tr>
<tr>
<td>3 days</td>
<td>5,000 (34.5)</td>
<td></td>
</tr>
<tr>
<td>7 days</td>
<td>6,000 (41.4)</td>
<td></td>
</tr>
<tr>
<td>28 days</td>
<td>10,000 (68.9)</td>
<td></td>
</tr>
<tr>
<td>Volume Change, % Flowable</td>
<td>7,000 (46.0)</td>
<td>ASTM C 1090</td>
</tr>
<tr>
<td>Change</td>
<td>1,000 (68.9)</td>
<td></td>
</tr>
<tr>
<td>Requirement of ASTM C 1107</td>
<td>5,500 (37.9)</td>
<td></td>
</tr>
</tbody>
</table>

¹ 100 – 125% flow on flow table per ASTM C 1437
² 125 – 145% flow on flow table per ASTM C 1437
³ 20 – 30 seconds through flow cone per ASTM C 939

This data was developed under controlled laboratory conditions. Expect reasonable variations.

PennDOT Approved
MASTERFLOW 928

High-precision mineral-aggregate grout with extended working time.

A hydraulic cement-based mineral aggregate non-shrink grout with extended working time. It is ideally suited for grouting machines or plates requiring precision load-bearing support. It can be placed from fluid to damp pack over a temperature range of 45 to 90°F (7 to 32°C).

PRODUCT HIGHLIGHTS:

- Meets the requirements of ASTM C1107 and US Army Corps of Engineers CRD C621 (Grades B and C), at a fluid consistency over a 30-minute working time.
- ANSI/NSF 61 certified for use with potable water
- Pumpable
- Extended working time
- Can be mixed at a wide range of consistencies
- Freeze/thaw resistant making it suitable for exterior applications
- Hardens free of bleeding, segregation, or settlement shrinkage to provide maximum effective bearing area for optimum load transfer
- Contains high-quality, well-graded quartz aggregate for optimum strength and workability
- Sulfate resistant for marine, wastewater and other sulfate-containing environments

APPLICATIONS:

- Grouting of equipment, such as compressors and generators, pump bases and drive motors, tank bases, conveyors, etc.
- Grouting anchor bolts, rebar and dowel rods
- Grouting of precast wall panels, beams, columns, curtain walls, concrete systems and other structural and non-structural building components
- Repairing concrete, including grouting voids and rock pockets

YIELD:
One 55 lb. bag of MasterFlow 928 grout mixed with 10.5 lbs. or 1.26 gallons of water (fluid consistency) provides approximately 0.50 ft³ of grout.
MASTERFLOW 885

High-precision, non-shrink metallic aggregate grout with extended working time

Formerly EMBECO® 885

A cement-based metallic aggregate grout with extended working time. It is ideally suited for grouting machines or plates requiring optimum toughness and precision loadbearing support, including machine bases subject to thermal movement.

PRODUCT HIGHLIGHTS:

- High strength and impact resistance
- High fluidity for ease of placement; self-consolidating
- Extended 30 minute working time ensures proper placement under a variety of conditions
- Pumpable
- High tolerance for wetting and drying cycles
- Non-shrink
- Hardens free of bleeding, segregation, or settlement shrinkage to provide maximum effective bearing area for optimum load transfer
- High tolerance to thermal movement, effects of heating and cooling making MasterFlow 885 ideal for harsh manufacturing environments

APPLICATIONS:

- Compressors, turbines and generators
- Pump bases and drive motors
- Pulverizers
- Tank bases
- Conveyors
- Roller mills and crushers
- Stamping and grinding equipment
- Grouting anchor bolts, rebar and dowel rods

- High quality well-graded blend of metallic and quartz aggregate provides high strength, impact resistance; handles dynamic and repetitive loads
- Sulfate resistant for use in marine, wastewater, and sulfate-containing soil environments
- MasterFlow 885 grout meets the requirements of ASTM C 1107 and the U.S. Army Corp of Engineers CRD C 621, Grades B and C.
- Freeze/thaw resistant making it suitable for exterior applications.

YIELD: One 55 lb. bag of MasterFlow 885 grout mixed with approximately 10 lbs. or 1.2 gallons of water yields approximately 0.43 ft³ of grout.
MASTERFLOW 648
High-strength, high-flow epoxy grout
Formerly MASTERFLOW 648 CP PLUS

MasterFlow 648 is an epoxy resin-based precision grout used to secure critical equipment for proper alignment and transmission of static and dynamic loads. With carefully balanced physical properties and excellent resistance to chemical attack, elevated service temperatures, vibration and torque, MasterFlow 648 is formulated for easy installation, with good flow characteristics suitable for pouring or pumping, low dust generation.

PRODUCT HIGHLIGHTS
- High early and ultimate strengths for rapid turnaround
- Low creep maintains equipment alignment
- Retains physical properties at elevated temperatures increasing the service range
- Low-dusting for added worker comfort and safety
- Very low shrinkage for full base-plate contact and load transfer
- Excellent flowability with high bearing area for even load distribution
- Variable fill ratio for desired flowability
- Excellent adhesion to steel and concrete for optimum load transfer & vibration dampening
- Good chemical resistance enables use in challenging environments
- Excellent freeze/thaw resistance for equipment in low temperature service environments
- Resists water and chloride intrusion for use in wet and aggressive environments
- Resists impact and dampens torque to protect equipment and extend service life
- Extended working time
- Pumpable for maximum productivity on large grout installations.
- Durable bond to concrete and steel optimizes load transfer
- Globally available for consistent project results

APPLICATIONS:
- Precision alignment of compressors, generators, pumps and electric motors
- Pour-back grouting for post-tensioning cables
- Crane rail grouting
- Grouting of crusher ball mills, slab tables and other equipment subject to high torque, impact and vibration
- Grouting of wind turbine tower bases
- Grouting of anchors, bars and dowels

<table>
<thead>
<tr>
<th>Test Data</th>
<th>RESULTS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength, psi (MPa)</td>
<td></td>
<td>ASTM C 579, Method B</td>
</tr>
<tr>
<td>Consistency (Fill Ratio)</td>
<td>7 Day Ambient</td>
<td>Post Cured*</td>
</tr>
<tr>
<td>4-Bag Mix (6.55:1)</td>
<td>14,500 (100)</td>
<td>16,000 (110)</td>
</tr>
<tr>
<td>3-Bag Mix (4.92:1)</td>
<td>14,000 (86)</td>
<td>15,000 (103)</td>
</tr>
<tr>
<td>Cure rate, filled 6.55:1</td>
<td>50º F (10º C)</td>
<td>77º F (25º C)</td>
</tr>
<tr>
<td>Compressive Strength, psi (MPa), when cured at:</td>
<td>ASTM C 579, Method B</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>50º F (10º C)</td>
<td>77º F (25º C)</td>
</tr>
<tr>
<td></td>
<td>24 Hours 4,700 (32)</td>
<td>10,800 (75)</td>
</tr>
<tr>
<td></td>
<td>2 Days 10,000 (69)</td>
<td>12,100 (83)</td>
</tr>
<tr>
<td></td>
<td>3 Days 11,000 (76)</td>
<td>13,000 (80)</td>
</tr>
<tr>
<td></td>
<td>4 Days 12,000 (83)</td>
<td>13,400 (92)</td>
</tr>
</tbody>
</table>

Grout
NON-SHRINK GENERAL PURPOSE GROUT

QUIKRETE® Non-Shrink General Purpose Grout is a high strength, non-metallic, Portland cement based material with expansive additives designed for grouting steel columns, bearing plates, pre-cast concrete, and anchoring applications.

PRODUCT USE:

Typical applications for QUIKRETE® Non-Shrink General Purpose Grout include grouting of:

- Steel columns
- Bearing plates
- Precast concrete
- Other anchoring conditions that require high in-service strength

The non-shrink characteristics of Non-Shrink General Purpose Grout make it stable and capable of handling high load transfers.

YIELD: Each 50 lb. bag will yield 0.45 cu ft. at flowable consistency.

CURING: A damp cure of at least 3 days is necessary to control the non-shrink characteristics and maintain strength levels.
Five Star® Grout is the industry’s leading cement-based, nonmetallic, non-shrink grout for supporting machinery and equipment. It is formulated with Air Release technology that combines high performance with the greatest reliability. When tested in accordance with ASTM C 827, Five Star® Grout exhibits positive expansion. Five Star® Grout meets the performance requirements of ASTM C 1107-02 Grades A, B and C, ASTM C 1107-07, and CRD-C 621-93 specifications for non-shrink grout over a wide temperature range, 40°F -90°F (4°C - 32°C).

**ADVANTAGES:**
- Air release technology per ACI 351.1 R
- 95% Effective Bearing Area (EBA) is typically achieved following proper grouting procedures
- Provides placement versatility: pour, pump or dry pack
- 45 minute working time
- Permanent support for machinery requiring precision alignment
- Does not contain gas generating additives, such as aluminum powder
- Non-shrink from the time of placement

**USES:**
- Grouting of machinery and equipment to maintain precision alignment
- Non-shrink grouting of structural steel and precast concrete
- Grouting of anchors and dowels
- Support of tanks and vessels
- Available for Nuclear Safety Zone Applications

**PennDOT Approved**

**PACKAGING AND YIELD:**
Packaged in heavy-duty, polyethylene lined bags & is available in 50 lb. units yielding approximately 0.5 cu.ft. or 100 lb. units yielding approx. 1.0 cu.ft. of hardened material at maximum water content.

<table>
<thead>
<tr>
<th>TYPICAL PROPERTIES AT 70°F (21°C)</th>
<th>Minimum Water psi (MPa)</th>
<th>Maximum Water psi (MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early Height Change, ASTM C 827</strong></td>
<td>0.0 to 4.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Hardened Height Change, ASTM C 1090</strong></td>
<td>0.0 to 0.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Effective Bearing Area</strong></td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td><strong>Bond Strength, ASTM C 882, 28 Days</strong></td>
<td>2,000 psi (13.8 MPa)</td>
<td></td>
</tr>
<tr>
<td><strong>Pull-out Strength, Tension, #5 threaded bar, 7 Days</strong></td>
<td>2,400 psi (16.6 MPa)</td>
<td></td>
</tr>
<tr>
<td><strong>Compressive Strength, ASTM C 942 (C109 Restrained)</strong></td>
<td>Minimum Water psi (MPa)</td>
<td>Maximum Water psi (MPa)</td>
</tr>
<tr>
<td>1 Day</td>
<td>4,000 (27.6)</td>
<td>2,500 (17.3)</td>
</tr>
<tr>
<td>3 Days</td>
<td>5,500 (38.0)</td>
<td>3,500 (24.1)</td>
</tr>
<tr>
<td>7 Days</td>
<td>6,500 (44.9)</td>
<td>5,000 (34.5)</td>
</tr>
<tr>
<td>28 Days</td>
<td>8,000 (55.2)</td>
<td>6,500 (44.9)</td>
</tr>
<tr>
<td><strong>Working Time at 70°F (21°C)</strong></td>
<td>45 minutes</td>
<td></td>
</tr>
</tbody>
</table>
SUPER POR-ROK
ANCHORING CEMENT NON SHRINK GROUT

Premium Cement Based Anchoring Cement
SUPER POR-ROK ANCHORING CEMENT is used in the anchoring of heavy machinery, railings, guard rails, banisters, repairing of cracks on damaged concrete substrate. It is a non-shrink, hydraulic, controlled expansion cement in a ready to use preparation. Water is added at the job site to provide a pourable, durable anchoring or patching compound. SUPER POR-ROK ANCHORING CEMENT has almost unlimited field applications.

TYPICAL APPLICATIONS:
• Anchors—Bolts, Dowels, Railings, Reinforcing rods, Machinery, Pipes in Concrete
• Grouts—Heavy Machinery, Structural Columns, Bearing Plates, Pre-cast Columns
• In setting, exerts expansion forces which “locks in”
• Anchor bolts, railings, etc.

PRODUCT HIGHLIGHTS:
• No rodding, chaining or vibrating
• Pourable
• Ideal for patching floors, walls, crack in concrete structures, caulking foundations/wall voids
• Interior or Exterior use
• No heating or two component mixing needed
• Quick Setting - Sets in 15 minutes
• Expands as it sets
• Stronger than concrete in 6 hours
• Product complies with all the properties of ASTM C1107 when tested at 73 degrees.

COMPRESSIVE STRENGTH:

<table>
<thead>
<tr>
<th>AGE</th>
<th>(ASTM C-109)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 hours</td>
<td>2,100</td>
</tr>
<tr>
<td>1 day</td>
<td>4,500</td>
</tr>
<tr>
<td>3 days</td>
<td>4,900</td>
</tr>
<tr>
<td>7 days</td>
<td>5,600</td>
</tr>
<tr>
<td>28 days</td>
<td>7,200</td>
</tr>
</tbody>
</table>
ASTM C 881 defines a classification system for epoxy bonding systems for concrete and is commonly referenced in specifications for construction and other civil engineering projects. Within ASTM C 881, seven Types of bonding system are listed, based on application and physical properties such as compressive strength, modulus, and bond strength. For each Type of bonding system, ASTM C 881 describes three Grades according to viscosity and resistance to sag. The epoxy Types are further characterized by Class, which indicates the temperature range in which the epoxy can be applied.

**Type I:** For Bonding Hardened Concrete to Hardened Concrete (non-load bearing)

**Type II:** For Bonding Fresh Concrete to Hardened Concrete (non-load bearing)

**Type III:** Bonding Skid-Resistant Materials to Hardened Concrete (low modulus)

**Type IV:** Bonding Hardened Concrete to Hardened Concrete (load bearing)

**Type V:** Bonding Fresh Concrete to Hardened Concrete (load bearing)

**Type VI:** Bonding and Sealing Pre-Cast Elements with Internal Tendons and Span by Span Erection

**Type VII:** Sealing Segmental Pre-Cast Elements

**Grade 1:** Low Viscosity (2,000 cps maximum)

**Grade 2:** Medium Viscosity (2,000 – 10,000 cps)

**Grade 3:** Non-Sag (1/4” Sag Resistance)

Defined for Types I through V only

Class A: For use below 40°F (4°C)
Class B: For use between 40°F and 60°F (4-15°C)
Class C: For use above 60°F (15°C)

Defined for Types VI and VII only

Class D: For use between 40°F and 65°F
Class E: For use between 60°F and 80°F
Class F: For use between 75°F and 90°F
DURAL 452 MV
High Modulus Epoxy Bonding Adhesive

A two-component, 100% solids, moisture insensitive, high strength epoxy adhesive and binder for numerous applications. This high modulus, medium viscosity epoxy resin is the perfect solution for bonding new, plastic concrete to existing concrete slabs and steel.

**PRIMARY APPLICATIONS:**
- Bonding fresh, plastic concrete to hardened concrete
- Anchoring bolts, dowels, or pins
- General adhesive for concrete and masonry
- Mix with dried silica sand to create a repair mortar

**FEATURES / BENEFITS:**
- Provides exceptional adhesion
- Easy to use 1:1 mix ratio
- DOT Not Regulated, non-corrosive
- Moisture insensitive for damp applications
- USDA compliant for use in food facilities

**TECHNICAL INFORMATION:**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Viscosity, cp</td>
<td>3,700</td>
</tr>
<tr>
<td>Gel Time, minutes</td>
<td>30</td>
</tr>
<tr>
<td>Tensile Strength, psi (MPa)</td>
<td>7 days: 7,600 (53.8)</td>
</tr>
<tr>
<td>Tensile Elongation, %</td>
<td>7 days: 1.3</td>
</tr>
<tr>
<td>Compressive Strength, psi (MPa)</td>
<td>7 days: 12,200 (84.1)</td>
</tr>
<tr>
<td>Compressive Modulus, psi (MPa)</td>
<td>7 days: $4.58 \times 10^9$ (3,144)</td>
</tr>
<tr>
<td>Bond Strength, psi (MPa)</td>
<td>9 days: 2,230 (15.4)</td>
</tr>
<tr>
<td>Bond Strength, psi (MPa)</td>
<td>14 days: 2,365 (16.3)</td>
</tr>
<tr>
<td>Heat Deflection Temperature</td>
<td>$120^\circ$F ($61^\circ$C)</td>
</tr>
<tr>
<td>Water Absorption @ 24 hours, %</td>
<td>&lt; 0.3</td>
</tr>
<tr>
<td>Appearance/Color</td>
<td>Light Gray</td>
</tr>
</tbody>
</table>

**SPECIFICATIONS / COMPLIANCES:**
DURAL 452 MV complies with ASTM C881 -10
Types I, II, IV AND V, Grade 2, Class C

**PennDOT Approved**

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DURAL FAST SET GEL
Rapid-Setting, High Modulus Epoxy Bonding Adhesive

A two-component, 100% solids, moisture insensitive, rapid-setting epoxy adhesive and binder for numerous applications. This high modulus, structural gel is perfect for bonding applications that require a quick turn-around.

**PRIMARY APPLICATIONS:**
- Bonding of concrete, masonry, steel, or wood
- Anchoring bolts, dowels, or pins
- Rapidly seal cracks and set ports prior to injection
- Mix with sand to create a repair mortar

**FEATURES / BENEFITS:**
- Exceptional adhesion to construction materials
- Perfect for vertical and overhead bonding
- Easy to use 1:1 mix ratio
- DOT Not Regulated
- Moisture insensitive
- Rapid strength gain in a wide temperature range

**PACKAGING:**
Packaged in 4 gal. and cases of 12/22 oz. and 24 / 10 oz. cartridges. The mix ratio is 1:1 by volume.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Viscosity</td>
<td>Consistency/Flow: 0.126 in (0.32 cm)</td>
</tr>
<tr>
<td>Pot Life, minutes</td>
<td>9</td>
</tr>
<tr>
<td>Compressive Strength, psi (MPa)</td>
<td>7 days: 10,160 (70.0)</td>
</tr>
<tr>
<td>Compressive Modulus, psi (MPa)</td>
<td>7 days: $3.02 \times 10^3$ (2,083)</td>
</tr>
<tr>
<td>Bond Strength, psi (MPa)</td>
<td>14 days: 3,000 (23.1)</td>
</tr>
<tr>
<td>Tensile Strength, psi (MPa)</td>
<td>7 days: 6,878 (47.4)</td>
</tr>
<tr>
<td>Water Absorption @ 24 hours, %</td>
<td>&lt; 0.4</td>
</tr>
<tr>
<td>Appearance/Color</td>
<td>Light Gray</td>
</tr>
</tbody>
</table>

**PennDOT Approved**
DURAL FAST SET LV
Low Viscosity, Rapid Setting, High Modulus Epoxy Adhesive

A two-component, 100% solids, moisture insensitive, rapid-setting epoxy adhesive and binder for numerous applications. This high modulus, low viscosity epoxy resin is the perfect solution for general bonding applications and for injecting cracks in concrete and a variety of other substrates. DURAL FAST SET LV can be used in temperatures as low as 35°F (2°C) and rising.

PRIMARY APPLICATIONS:
- Bonding of concrete, masonry or wood
- Injection resin for cracked, structural substrates
- Gravity feed cracks in concrete slabs
- Mix with dried silica sand to create a repair mortar

FEATURES / BENEFITS:
- Exceptional adhesion to construction materials
- Low viscosity penetrates deep into cracks
- Easy to use 1:1 mix ratio
- Moisture insensitive
- Impeccable bond strength

SPECIFICATIONS / COMPLIANCES:
Complies with ASTM C 881-10 Types I and IV, Grade 1, Class A, B and C

---

DURALPREP A.C.
Bonding Agent & Anti-Corrosion Coating for Reinforcement

A three-component bonding agent and anti-corrosion coating for reinforcing steel. It is a pre-proportioned kit that contains a water-based epoxy, combined with portland cement that can be used as a bonding agent for placing fresh concrete and repair mortars to existing concrete substrates. DURALPREP A.C. contains a corrosion inhibitor which protects reinforcement when used as an anti-corrosion coating for steel. DURALPREP A.C. has a long open time, is non-flammable, VOC compliant, and does not form a water vapor barrier after cure.

PRIMARY APPLICATIONS:
- Bonding agent for fresh concrete to existing concrete
- Concrete repairs with cement or epoxy mortars
- Anti-corrosion coating for steel reinforcement
- Exterior or interior
- On grade or above grade applications

FEATURES / BENEFITS:
- Long open time
- Contains a corrosion inhibitor
- Ease of application (brush/spray)

PACKAGING:
packaged in 3.75 gal. units

---

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Viscosity, cp</td>
<td>500</td>
</tr>
<tr>
<td>Gel Time, minutes</td>
<td>6 to 0</td>
</tr>
<tr>
<td>Compressive Strength, psi (MPa)</td>
<td>10,042 (75)</td>
</tr>
<tr>
<td>Compressive Modulus, psi (MPa)</td>
<td>3.75 x 10^6 (2,606)</td>
</tr>
<tr>
<td>Bond Strength, psi (MPa)</td>
<td>2,207 (16)</td>
</tr>
<tr>
<td>Water Absorption @ 24 hours, %</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Tech Information:

**PROPERTY**                  **RESULT**
---                            ---
Mix Ratio                     1 gal A: 1 gal B: 36 lbs C
(3.8 l: 3.8 l: 16 kg)
Contact Time                  Up to 24 hours depending on temperature
Pot Lifes, 2 gal (7.6 L) Unit. minutes | 35 to 40 |
Compressive Strength, psi (MPa) | 2,000 psi (20 MPa) |
Flexural Strength, psi (MPa)   | 2,000 psi (20 MPa) |
Shore D Hardness, Shore D (24h) | 90 to 95 |
Bond Strength, psi (MPa)       | 2,000 psi (20 MPa) |
Spotted Tensile Strength, psi (MPa) | 200 psi (1.4 MPa) |
Water Vapor Permeability       | 0.16 grains/hr/hr |
Appearance/Color               | Concrete Gray  |

PennDOT Approved
SIKA ARMATEC®
110 EpoCem® Bonding Agent and Reinforcement Protection

Sika Armatec 110 EpoCem is a 3-component, solvent-free, moisture-tolerant, epoxy-modified, cementitious product specifically formulated as a bonding agent and an anti-corrosion coating.

WHERE TO USE:
- As an anti-corrosion coating for reinforcing steel in concrete restoration.
- As added protection to reinforcing steel in areas of thin concrete cover.
- As a bonding agent for repairs to concrete and steel.
- As a bonding agent for placing fresh, plastic concrete to existing hardened concrete.

ADVANTAGES:
- Excellent adhesion to concrete and steel.
- Acts as an effective barrier against penetration of water and chlorides.
- Long open time - up to 16 hours.
- Not a vapor barrier.
- Can be used exterior on-grade.
- Contains corrosion inhibitors.
- Excellent bonding bridge for cement or epoxy based repair mortars.
- High strength, unaffected by moisture when cured.
- Spray, brush or roller application.
- Non-flammable, solvent free.

COVERAGES:
Bonding agent: minimum (theoretical) on smooth, even substrate 80 sq. ft./gal. (=20 mils thickness).
Coverage will vary depending on substrate profile and porosity.

Reinforcement Protection: 40 sq. ft./gal. (=20 mils thickness) (2 coat application).

PACKAGING:

Typical Data (Material and curing conditions @ 73°F and 50% R.H.)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf Life</td>
<td>1 year in original, unopened packaging.</td>
</tr>
<tr>
<td>Storage</td>
<td>Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using. If components A and B are frozen, discard. Protect Component C from humidity.</td>
</tr>
<tr>
<td>Color</td>
<td>Concrete gray</td>
</tr>
<tr>
<td>Density (Mixed)</td>
<td>125 lb./ft.3</td>
</tr>
<tr>
<td>Pot Life</td>
<td>Approximately 90 minutes</td>
</tr>
<tr>
<td>Compressive Strength (ASTM C-109)</td>
<td>3 days 4500 psi (31.0 MPa)</td>
</tr>
<tr>
<td></td>
<td>7 days 6500 psi (44.8 MPa)</td>
</tr>
<tr>
<td></td>
<td>28 days 8500 psi (58.6 MPa)</td>
</tr>
<tr>
<td>Flexural Strength (ASTM C-348)</td>
<td>28 days 1250 psi (8.6 MPa)</td>
</tr>
<tr>
<td>Splitting Tensile Strength (ASTM C-496)</td>
<td>28 days 600 psi (4.1 MPa)</td>
</tr>
<tr>
<td></td>
<td>Carbon Dioxide Carbon dioxide diffusion coefficient µ CO2 14000</td>
</tr>
</tbody>
</table>

PennDOT Approved
SIKADUR® 32, Hi-Mod
High-modulus, high-strength, epoxy bonding/grouting adhesive

Sikadur 32, Hi-Mod, is a multi-purpose, 2-component, 100% solids, moisture-tolerant structural epoxy adhesive. It conforms to the current ASTM C-881, Types I, II, and V, Grade-2, Class C and AASHTO M-235 specifications.

WHERE TO USE:
• Bond fresh, plastic concrete to hardened concrete and steel.
• Grout horizontal cracks in structural concrete and wood by gravity feed.
• Machinery and ‘robotic’ base-plate grout.
• Structural adhesive for concrete, masonry, metal, wood, etc.

ADVANTAGES:
• Super-strength bonding/grouting adhesive.
• Tolerant to moisture before, during and after cure.
• Excellent adhesion to most structural materials.
• Convenient easy-to-mix ratio A:B = 1:1 by volume.
• Easy-to-use for bonding/grouting applications.
• Fast initial set; rapid gain to ultimate strengths.
• USDA-certified for use in food plants.

Typical Data (Material and curing conditions @ 73°F [23°C] and 50% R.H.)
RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

| Shelf Life | 2 years in original, unopened containers. |
| Storage Conditions | Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F before using. |
| Color | Concrete gray |
| Viscosity | Approximately 4-5,000 cps. |
| Pot Life | Approximately 45 minutes. (60 gram mass). Approximately 25 minutes. (350 gram mass, 8 oz.) |
| Contact Time | 40°F*: 15-16 hrs. 73°F*: 2-2.5 hrs. 90°F*: 1.5-2 hrs |
| Compressive Modulus, psi 7 day | 2.1 X 105 psi (1,449 MPa) |
| Tensile Properties (ASTM D-638) | 7 day Tensile Strength 6,100 psi (48 MPa) |
| | Elongation at Break 1.9% |
| | 14 day Modulus of Elasticity 5.4 X 105 psi (3,726 MPa) |
| Flexural Properties (ASTM D-790) | 14 day Flexural Strength (Modulus of Rupture) 7,000 psi (48.3 MPa) |
| | Tangent Modulus of Elasticity in Bending 6.9 X 105 psi (4,800 MPa) |
| Shear Strength (ASTM D-732) | 14 day Shear Strength 6,200 psi (43 MPa) |
| Water Absorption (ASTM D-570) | 7 day (24 hour immersion) 0.21% |
| Heat Deflection Temperature (ASTM D-648) | 7 day [fiber stress loading 264 psi (1.8 MPa)] 122°F (50°C) |

PennDOT Approved
Weld-Crete®

Bonds wet concrete, stucco & terrazzo to any structurally sound surface, interior and exterior

Weld-Crete® bonds new concrete, stucco, tile setting beds and terrazzo to any structurally sound surface, interior or exterior. Use Weld-Crete's® open time to your advantage in bonding to concrete shear walls when you need a time lapse between application of bonding agent, placement of reinforcement steel, placement of formwork and placement of concrete.

The original chemical concrete bonding agent, Weld-Crete® incorporates polyvinyl acetate homopolymer in a patented formulation. For exterior and interior use, Weld-Crete® will bond new concrete, Portland cement plaster and cementitious mixes to structurally sound concrete floors, walls, columns, beams, steps and ramps. Weld-Crete® can be “painted on” in a single application 1 hour to 10 days prior to concrete placement. Use Weld-Crete's® open time to your advantage in bonding to concrete shear walls when you need a time lapse between application of bonding agent, placement of reinforcement steel, placement of formwork and placement of concrete.

Weld-Crete® is also used for: bonding setting beds for ceramic tile; bonding Portland cement plaster and stucco mixes; and to bond to surfaces such as brick, block, tile, marble, metal, glass block, soundly adhered paint (non-soluble in water, i.e. casien and calcimine paints), and silicone.

**COVERAGE:** 200 to 300 sq. ft./gallon.

Brush, roll or spray with delayed timing as needed.  
**Color:** blue, (non-bleeding).
EPCON A7
Acrylic Adhesive

Fast Dispensing, Fast Curing Acrylic Adhesive

Saves You Time and Money on the Job Site

Trealed Head A7+ is a high-strength, fast-cure adhesive that is designed to securely anchor threaded rod and rebar to cured concrete and masonry. A7+ is one of the most versatile anchoring solutions on the market, suitable for use in an extremely wide range of applications and environmental conditions.

- Qualified for use in concrete, grout-filled and hollow block, brick, and clay tile
- ICC-ES approved for cracked concrete and seismic conditions (ICC-ES ESR-3903)
- ICC-ES approved for grout-filled masonry (ICC-ES ESR-3951)
- Cures in only 45 minutes (at base temperature of 70F/21C)
- No extra time required for drying saturated concrete or water-filled holes
- Easy pumping even in cold temperatures
- Low odor—suitable for use indoors and in occupied buildings
- Optimum viscosity simplifies use in overhead and horizontal holes
- 18-month storage life minimizes waste and risk of using expired product
- Rugged, re-sealable cartridge resists breakage due to rough handling or cold temperatures

<table>
<thead>
<tr>
<th>BASE MATERIAL (°F/°C)</th>
<th>WORKING TIME</th>
<th>FULL CURE TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>100°/38°</td>
<td>5 minutes</td>
<td>26 minutes</td>
</tr>
<tr>
<td>80°/27°</td>
<td>5.5 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>60°/16°</td>
<td>7 minutes</td>
<td>35 minutes</td>
</tr>
<tr>
<td>40°/4°</td>
<td>15 minutes</td>
<td>75 minutes</td>
</tr>
<tr>
<td>20°/-7°</td>
<td>35 minutes</td>
<td>6 hours</td>
</tr>
<tr>
<td>0°/±18°</td>
<td>4 hours</td>
<td>24 hours</td>
</tr>
</tbody>
</table>

A7+
Available Soon

PennDOT Approved
LIQUID ROC 300 Twin Tube

Available Materials
- Twin Tube – polyester resin base, benzoyl peroxide hardener
- Square cut rods – A307 steel, zinc plated. Other sizes, materials and finishes
  available upon request

FEATURES / ADVANTAGES
- Pre-measured adhesive
- Easy to use and can be saved for re-use
- Nozzle included
- Works well in horizontal and overhead applications
- Can be used with screen tubes

CONCERNS
- 9 month shelf life
- For short term loading only

Installation

1) Drill Hole to correct diameter & depth
2) Clean dust from hole using a round nylon brush. Use pressurized air to blow dust out of hole.
3) Twist off cap on cartridge.
4) Screw static mixer nozzle over cartridge opening. Load into dispensing tool.
5) Dispense adhesive filling from bottom of hole to avoid air pockets. Dispense and discard a bead of material to achieve proper mix, indicated by uniform color.
6) Insert anchor rod into hole using slight twisting motion.
7) In cases where you are using a screen in the hole, then insert anchor into screen.
KELKEN

Keligrout™

Vertical application or angled down. Keligrout™ is a superior high strength polyester resin anchoring material with guaranteed pullout values exceeding ACI-349-85.

Hand Mixed & Pour
- The certainty of “powder” catalyst, easily stirred into resin, then poured into hole.
- Can be used at sub freezing temperatures or in rainy weather.
- May be used under water.

Keligrout 101-P

Keligrout 101-P is for horizontal or angled up applications. Easy-to-use large capacity cartridges. Cartridges are much larger than most competitors’, decreasing labor cost of frequent changes. Easier to pump than most viscous epoxy cartridges.

Kelianchors™

We offer a wide range of Kelianchors™ including Bent Kelianchors™, Removable Kelianchors™, and Lefty™ Anchors. Kelianchor is available in sizes from 3/8” to 3” Plus, any length, diameter and style.

Kelislip

Kelislip™ is a paint-like product that allows Kelianchors™ to be made removable. The anchors are treated with this TEFLON® solution. The cured resin will not adhere to the anchor, only to the surrounding concrete... yet the deep threads of a Kelibond Anchor™ allow as much pullout strength to develop as if the bolt were uncoated. Kelibond Anchors™ may be field coated for subsequent reuses.
GREENBAR® TOUCH UP COATING KIT

Valspar Greenbar® Touchup Coating Kit is a two-component, catalyzed epoxy system supplied in kit form for ease of handling. It is designed for making repairs to rebar coated with Valspar Greenbar® Powder Coating. The material is formulated to provide the same excellent protection as the original plant-applied Valspar Greenbar® Coating.

APPLICATIONS:
For best coating performance, Valspar Greenbar® Touchup Coating should be applied by brush, roller, conventional spray equipment, or airless spray equipment to a thickness minimum of 8 mils/203 microns dry overlapping the Valspar Greenbar® Powder Coating surface.

PROPERTIES:
A surface that can be handled will be obtained after two hours at 75°F. The coating will cure at temperatures as low as 50°F, but a much longer period of time will be required. This is the recommended cure schedule for dry to handle:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>100°F / 38°C</td>
<td>1 hour</td>
</tr>
<tr>
<td>200°F / 93°C</td>
<td>30 minutes</td>
</tr>
<tr>
<td>250°F / 121°C</td>
<td>20 minutes</td>
</tr>
<tr>
<td>300°F / 149°C</td>
<td>15 minutes</td>
</tr>
</tbody>
</table>

Benefits:
- Strong chemical resistance
- Strong corrosion protection
- Achieves ASTM A934 specification
- Product Information:

PennDOT Approved

The Valspar Greenbar coating line provides optimum corrosion protection for steel reinforcing bar, piling, dowel bar and related components critical to long-term structural performance. Formulated to match the demands of pre-fabrication, post-fabrication and in-field application, Valspar ensures uniform coatings coverage and protection across a broad range of application environments.

From bridges to commercial structures and the roads in between, Valspar provides customers with proven, dependable products that stand the test of time.

Strengthening Infrastructure Growth

Bridges and buildings are only as strong as the integrity of the products used to construct them. Valspar has been adding strength to infrastructure projects around the world for more than 30 years with Valspar Greenbar, the leading fusion-bonded epoxy solution in North America. Our coating line provides robust protection from the elements during manufacturing, transportation, installation and operation of pipelines for dependable protection where you need it most.

Our Powder Portfolio
REBAR SPRAY J62

Rebar Spray J62 is an epoxy coating packaged in a ready-to-use 11 ounce spray can. The color of this epoxy coating is green.

APPLICATIONS:
The Rebar Spray J62 is designed as a protective coating to touch-up damaged epoxy coating, such as nicks, scratches etc., on rebar.

PROPERTIES:
Dry Time @ 72°F (22°C), 50% humidity, 1.5 mil thickness
To Touch _ 10 minutes
To Recoat _ 30 minutes
Hard Cure _ 48 hours

Meets ASTM A-775, D-3963 requirements regarding the repair of defects in organic coatings for rebar.
*When applied at a wet mil thickness of 7 mils (5 mil dry)
Si-Rex03
Silicone Resin Exterior Paint

Si-Rex03 by Klaas Coatings is a state-of-the-art exterior architectural wall and facade coating specifically for use on concrete and masonry substrates. Use of an advanced silicone resin binder system delivers a sophisticated matte finish with outstanding performance benefits.

Si-Rex03 protects the substrate with excellent water repellency - it also allows the substrate to breathe almost unhindered. This property minimizes potential for peeling and flaking from entrapped moisture. The costing has a self-cleaning effect and excellent resistance to microbial attack; keeping the surface looking cleaner longer.

BENEFITS:
Excellent Water Repellency
• Protects the substrate by keeping it dry
• Provides a self cleaning effect
• Minimizes microbial attack

High Vapor Permeability
• Open structure allows entrapped moisture to escape
• Reduces relative humidity (RH) within substrate to negate ASR and/or DEF occurrence
• High durability to weathering and UV exposure
• Resistance to dilute alkali and acid

Quartz-like Structure
• High durability to weathering and UV exposure
• Resistance to dilute alkali and acids
• Tough and abrasion resistant

PRACTICAL COVERAGE:
• Minimum of two (2) coats @ 260-280 ft2/gal per coat smooth cast-in place concrete surface*.
• Minimum of two (2) coats @ 300-320 ft2/gal per coat high compressive strength (8,000-10,000 psi) precast concrete smooth finish beams*.
  (*apply test area to determine actual coverage given temperature, humidity and substrate conditions).
MasterFinish EA retarder is a top surface chemical retarder which provides a simple, economical method of exposing aggregates for freshly poured concrete flat work. MasterFinish EA allows for a range of textures and colorful surfaces for sidewalks, terraces, promenades and steps. MasterFinish EA can also be used to create construction joints.

**FEATURES:**
- Etch retention in temperatures up to 110° F (43° C)
- Ease of application
- Color-coded
- Two strengths available (Regular and Deep)
- Water-based

**BENEFITS:**
- Suitable for a wide variety of environments
- Excellent top surface results
- Easy identification
- Suitable for various surface profiles
- No solvent, no odor; no fume or flammability problems

**RECOMMENDED USES:**
- Sidewalks
- Driveways
- Terraces
- Promenades
- Steps
- Construction joints
- Face-up exposed aggregate applications
- Fresh concrete
SUPER TARD - F
Super Tard - F is a heavy-bodied concrete set retarder designed for use on forms where an exposed-aggregate finish is desired. Application of Super Tard - F to forms allows for the removal of the top layer of cement paste after the forms are removed. Super Tard - F contains a fugitive dye for easy monitoring of uniform coverage and application rates.

APPLICATION:
Prior to placing concrete, use a brush or roller to apply Super Tard-F to the form surface that will contact the concrete in the areas where an exposed-aggregate finish is desired. Use a brush or cloth to remove puddles, drips, or excess material.
Allow the Super Tard-F to dry completely on the form before proceeding with placement of the concrete. Water in the concrete will reactivate the Super Tard-F. Once the forms have been removed, usually 24-48 hours, spray the treated surface with a jet of water while scrubbing with a coarse floor brush to remove the retarded paste. Power washing is more efficient and should be used when possible. Test a small area to determine the depth of retardation before proceeding with the rest of the surface. If the depth is excessive, wait a while before washing. Super Seal 30 is recommended to brighten the color, prevent staining, and create a water resistant surface.
Coverage Rate: 200–300 ft.² per gallon
Clean-up: Clean tools and equipment with water immediately after use.

Exposes aggregate concrete
Horizontal application- use Super Tard F for vertical
Bright Green Fugitive Dye makes it easy to see
Water-based for low odor
Sprays easily like water
Ready--to-use from the can
Packaged in 1-gallon jugs and 5-gallon pails
CERTI-VEX SURE SLIDE
Graphite Lubricant

Certi-Vex Sure Slide is a technologically advanced graphite based lubricant for allowing dowel bars to slide in concrete pavement.

BENEFITS:
- Superior lubricant over grease and oil
- Graphite plates yield smooth slide
- Long lasting vehicle for long lasting smooth lubrication
- Wash-out resistant
- 43% premium plated graphite
- No volatile solvents
- Non-sagging prevents run off
- Pre-mixed to application viscosity

APPLICATIONS:
- Mix well with Jiffy mixer with a ½” drill. Can be applied by dipping or by brush
- When applying by brush; application rate on 1.25” “epoxy dowel bar” is 50 sq.ft./gal or 3.0 fluid oz. per linear ft.
- When applying by dip at 73°F; coverage rate on 1.25” “epoxy dowel bar” average is 100 sq.ft./gal or 1 ½ once per linear ft.

PennDOT Approved

PAVEMENT HOOK BOLTS & LONGITUDINAL BOLTS

Epoxy Hook Bolts - PennDOT approved

ANCHOR BOLT

COUPLER NUTS
You now have a CHOICE!
SPEED PLATE™ is the new and economically smart choice for Flat Plate Dowel Systems

- Ensure proper dowel alignment
- Save labor
- > No form drilling required
- > No greasing of dowels
- > No spinning, removing or replacing of dowels
- A doweling method in accordance with ACI 302.1R-04
- Guide for Concrete Floor and Slab Construction
- One-Piece Design with alignment marks and pre-installed nails makes installation quick and easy
- Integral, patented sleeve insert eliminates lateral restraint between concrete sections
- Engineered to provide optimal use of steel
- Larger steel plates (compared to competing plate dowels) provide greater overall surface area to reduce bearing stresses on concrete
- Non-Tapered plate profile ensures consistent bearing stresses at joint face and full depth of dowel

Greenstreak's SPEED PLATE reduces the number of dowels required when compared with conventional doweling systems. SPEED PLATE allows the installer to increase the center distance between dowels, further reducing labor costs. The conversion charts below give a comparative analysis of equivalent size SPEED PLATE to conventional smooth round dowels:

<table>
<thead>
<tr>
<th>Sleeve Color</th>
<th>Slab Depth</th>
<th>SPEED PLATE® Dowel Dimensions</th>
<th>Plate Dowel On Center Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>5”-6”</td>
<td>1/4” thick X 4” width X 6” lang</td>
<td>18”</td>
</tr>
<tr>
<td>Yellow</td>
<td>7”-8”</td>
<td>3/8” thick X 4” width X 6” lang</td>
<td>18”</td>
</tr>
<tr>
<td>Green</td>
<td>9”-11”</td>
<td>3/4” thick X 4” width X 6” lang</td>
<td>18”</td>
</tr>
</tbody>
</table>

Note: Values are based on a maximum joint opening of 0.20”

Greenstreak’s Technical Engineering Department has dedicated countless laboratory hours and research funds to investigate load transfer systems. Independent tests were conducted to provide an unbiased evaluation of the current doweling methods available, including round, flat plate, square, and diamond plate.
SPEED DOWEL™ is the superior choice for slab on grade and vertical wall construction joints. Applications for SPEED DOWEL™ and SPEED LOAD are limitless; typical projects include:

- Distribution Centers
- Manufacturing Facilities
- Airports
- Entertainment Centers
- Warehouses
- Commercial / Industrial Developments
- Parking Facilities

SPEED DOWEL™ is the slip dowel installation system preferred by engineers and contractors alike. SPEED DOWEL™ provides a highly effective method for constructing superior quality construction joints in concrete flatwork. Additionally, SPEED DOWEL™ cuts the time and labor of conventional slip dowel installation in half.

SPEED LOAD performs a similar function for expansion joints. Easy to install SPEED LOAD will provide properly aligned dowels for correct load transfer.

<table>
<thead>
<tr>
<th>SLEEVE PRODUCT CODE</th>
<th>ROUND DOWEL SIZE</th>
<th>SLEEVE LENGTH</th>
<th>BASE PRODUCT CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD09/#4TX</td>
<td>5/8&quot; Smooth or #4 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSD/#48X</td>
</tr>
<tr>
<td>PSD12/#4TX</td>
<td>5/8&quot; Smooth or #4 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSD/#48X</td>
</tr>
<tr>
<td>PSD09/#5TX</td>
<td>3/4&quot; Smooth or #5 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSD/#58X</td>
</tr>
<tr>
<td>PSD12/#5TX</td>
<td>3/4&quot; Smooth or #5 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSD/#58X</td>
</tr>
<tr>
<td>PSD09/#6TX</td>
<td>7/8&quot; Smooth or #6 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSD/#68X</td>
</tr>
<tr>
<td>PSD12/#6TX</td>
<td>7/8&quot; Smooth or #6 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSD/#68X</td>
</tr>
<tr>
<td>PSD09/#7TX</td>
<td>1&quot; Smooth or #7 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSD/#78X</td>
</tr>
<tr>
<td>PSD12/#7TX</td>
<td>1&quot; Smooth or #7 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSD/#78X</td>
</tr>
<tr>
<td>PSD09/#9TX</td>
<td>1 1/4&quot; Smooth or #9 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSD/#98X</td>
</tr>
<tr>
<td>PSD12/#9TX</td>
<td>1 1/4&quot; Smooth or #9 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSD/#98X</td>
</tr>
<tr>
<td>PSDEPX09/#9TX*</td>
<td>1 1/4&quot; Smooth or #9 Rebar X 18&quot;</td>
<td>9&quot;</td>
<td>PSDEPX/#98X</td>
</tr>
<tr>
<td>PSDEPX12/#9TX*</td>
<td>1 1/4&quot; Smooth or #9 Rebar X 24&quot;</td>
<td>12&quot;</td>
<td>PSDEPX/#98X</td>
</tr>
</tbody>
</table>

Reduce slip dowel installation costs by 50% and ensure proper alignment
FORM-A-KEY
KEY-LOC JOINT SYSTEM

This is a combination slab form, keyway former and screed support for forming concrete floor slabs. It is a leave-in-place joint that is particularly useful when pouring large floor areas such as in factories and warehouses. The system eliminates checker boarding and allows continuous pours to any width. Floor loading is transferred across joints both by the large keyway, and by steel dowels that are inserted through knockouts provided at 6” intervals along the joint.

Key-loc features a ratchet top stake interlock that speeds setting joint to grade and holding it in place during pouring and finishing operations. Accessories include a joint splice for accurate alignment of joint ends, stake clips used when it is necessary to pour concrete against the stake side first and a plastic cap strip that automatically forms a uniform sealant recess over the joint 13/32 inch wide by 3/16 deep.

Key-loc is available in sizes for slabs of 4, 5, 6, 8 and 10” thick, to foot lengths. Steel ratchet top stakes in 12, 15, 18, 21 and 24” lengths. Plastic cap strip, 500 feet per roll.

Stakes are driven along the length of line at about 2 foot intervals. Top of stake is set to finished floor elevation.


Install “snap-in” joint splice. Splice gives perfect alignment of joint ends.

Knockouts are provided at 6” centers along the joint for dowels or rebar penetration. Knockouts should be bent to approx. 45° into the pour to act as anchors, especially when Key-Loc is used as a shut-off.
The most proven & trusted Detectable Warning solution in the world.

**Surface Applied**
**Truncated Dome**
**Detectable Warning Systems**

- For use in Retrofit applications or new construction
- Large perimeter beveled edges for smooth transition
- Secured with color matched fasteners and structural adhesive
- Surface applied tiles are 1/8” thick with beveled edges
- Standard sizes: 24” x 36”, 24” x 48”, 24” x 60”, 36” x 48” and 36” x 60”
- Custom Sizes Available (certain restrictions apply, call for details)
- All Tactile Warning System tiles are designed to be installed on a concrete substrate.

**Surface Mount** product is perfect for those projects where you need to retrofit an existing concrete substrate. Available in five different sizes, each of our Surface Mount tiles can be installed in as little as 10 minutes, dramatically reducing your installation costs.

**Cast-In-Place Pavers**
A great long-term solution for any job, under any weather conditions.

*Replaceable Wet-Set*
*(U.S. Patent Pending)*

The only 100% replaceable Detectable Warning product on the market. Pressed into wet concrete, our new replaceable pavers are the most durable product available anywhere.

**Wet-set replaceable Radius Truncated Dome Detectable Warning Systems and Surface-Applied Radius Truncated Dome Detectable Warning Systems**

- Available in REPLACEABLE WET-SET & SURFACE APPLIED
- For use on most Radius curb applications; new construction or Retrofit
- All Panels are pre-scored to be cut at 10’, 15’ and 20’ radius.

PennDOT Approved
For new construction or retrofit, industrial or commercial, POLYCAST® 4’ sections and 2’ half-sections are designed to be right for your next project.

**Easy Installation -**

Eliminates the need for expensive and time consuming on-site forming work, reduces labor cost and downtime.

**Efficient Drainage -**

Smooth, rounded bottom design for high velocity flow, maximizing self-cleaning characteristics.

**Durable -**

Precast of durable polymer concrete. Stronger than concrete; resistant to moisture, most chemicals, salts and freeze/thaw cycles.

**Stock 600 series**

Polycast Drain Designer:

www.hubbellpowersystems.com/about/polycast/
MESH

ADD THE STRENGTH OF STEEL TO CONCRETE WITH MESH

Galvanized and PennDOT mesh available

Roll Size 5’ x 150’
5’ x 10’ sheet

COMMON STYLES OF WELDED WIRE FABRIC

<table>
<thead>
<tr>
<th>Style Designation</th>
<th>Spacing of Wires, In.</th>
<th>Weight lbs. per 100 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Designation (By Steel Wire Gage)</strong></td>
<td><strong>New Designation (By W-Number)</strong></td>
<td>Longit.</td>
</tr>
<tr>
<td>6 x 6 - 10 x 10</td>
<td>6 x 6 - W1.4 X W1.4</td>
<td>6</td>
</tr>
<tr>
<td>6 x 6 - 8 x 8</td>
<td>6 x 6 - W2.1 X W2.1</td>
<td>6</td>
</tr>
<tr>
<td>6 x 6 - 6 x 6</td>
<td>6 x 6 - W2.9 X W2.9</td>
<td>6</td>
</tr>
<tr>
<td>6 x 6 - 4 x 4</td>
<td>6 x 6 - W4 X W4</td>
<td>6</td>
</tr>
<tr>
<td>4 x 4 - 6 x 6</td>
<td>4 x 4 - W2.9 X W2.9</td>
<td>4</td>
</tr>
<tr>
<td>4 x 4 - 4 x 4</td>
<td>4 x 4 - W4 X W4</td>
<td>4</td>
</tr>
</tbody>
</table>
# REBAR

Epoxy rebar and rebar hoops available.

### ASTM STANDARD INCH-POUND REINFORCING BARS

<table>
<thead>
<tr>
<th>Bar Size Designation</th>
<th>NOMINAL DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA (in.sq.)</td>
</tr>
<tr>
<td># 3</td>
<td>0.11</td>
</tr>
<tr>
<td># 4</td>
<td>0.20</td>
</tr>
<tr>
<td># 5</td>
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<td># 6</td>
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<td># 7</td>
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<td># 8</td>
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<tr>
<td># 9</td>
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</tr>
<tr>
<td># 10</td>
<td>1.27</td>
</tr>
<tr>
<td># 11</td>
<td>1.56</td>
</tr>
<tr>
<td># 14</td>
<td>2.25</td>
</tr>
<tr>
<td># 18</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Grade 60 10’ and 20’ lengths
Size # 3 (3/8”); # 4 (1/2”); # 5 (5/8”); # 6 (3/4”)
BAR TIES

Always sourced as economically as possible, MAR-MAC’s Quality Control and product expertise ensures our CONTRACTOR Bar Ties will perform well in the field.

- Sizes: 16 & 17 gauge
- Lengths: 4 – 24 inches in 1 inch increments (17ga to 12 inches only)
- Packaging options: 5,000 or 2,500 piece bundle depending on size; 1,000 piece bundles in 4 & 5 roll master packs in limited SKUs

Look for the Buy America Eagle on your box of MAR-MAC Premium Tie Wire or other Premium Building Products to know you are in compliance.
Herron Wire Products, Inc.

WIRE BAR TIES
BAR TIE LENGTH FOR STANDARD REINFORCING BARS

14, 16, 17, 18 gauge
sizes 4” - 36”
black annealed, galvanized, plastic-coated, stainless steel

<table>
<thead>
<tr>
<th>Bar #</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>Bar size</td>
<td>1/4”</td>
<td>3/8”</td>
<td>1/2”</td>
<td>5/8”</td>
<td>3/4”</td>
<td>7/8”</td>
<td>1”</td>
<td>1 1/8”</td>
<td>1 1/4”</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1/4”</td>
<td>3</td>
<td>3 ½</td>
<td>4</td>
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<td>5 ½</td>
<td>6</td>
<td>6 ½</td>
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<tr>
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<td>8</td>
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<td></td>
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<tr>
<td>10</td>
<td>1 1/8”</td>
<td>6 ½</td>
<td>7</td>
<td>7 ½</td>
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<td>8</td>
<td>8 ½</td>
<td>9</td>
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<tr>
<td>11</td>
<td>1 1/4”</td>
<td>7</td>
<td>7 ½</td>
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<td>8</td>
<td>8 ½</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Also available with Plastic Coating for Epoxy Coated Bar

Black Soft Annealed
BAR SUPPORTS

Slab Bolster
Slab Bolster is used to support lower slab steel from the slab form. Legs are spaced on 5” centers. Available in 3/4” to 3” heights in 5” lengths and in bright basic, galvanized, plastic protected. With Tip.

Slab Bolster Upper
Wilson offers a complete line of rebar and/or mesh supports. All rebar supports are manufactured to the recommendations or specifications of the Concrete reinforcing Steel Institute (CRSI). Supports are available bright basic, plastic protected, epoxy coated and stainless steel for various corrosion resistance protection.

Bar Chair
Bar Chair is used to support wide spaced light steel in slab construction. Available in 3/4” to 2” heights in bright basic, plastic protected, galvanized and stainless steel protected.

Individual High Chair
Individual High Chair is used to support upper steel directly or by means or a carrier bar. Available in bright basic, plastic protected, galvanized and stainless steel protected.

Continuous High Chair
Continuous High Chair provides support upper slab steel eliminating the need for carrier bars. Fabricated in 2” to 15” heights in 5” lengths with legs spaced on 8” centers. Available in bright basic, plastic protected, galvanized and stainless steel protected.

Continuous High Chair Upper

PennDOT Approved
The complete line for all types of forming. Round nail type steel stakes 3/4” and 7/8” diameter, flat nail type stakes, round 3/4”, 7/8” and 1” steel form pins, steel stake pullers, screed posts and adjustable screed brackets.

The most ECONOMICAL line for all construction forming jobs.

All Products are made of high strength steel and are designed for maximum use at a reasonable cost.
1100 CLEAR
Water-Based, Wax-Based Concrete Curing Compound

The SEALTIGHT 1100-CLEAR Series Water-Base Concrete Curing Compounds are formulated from hydrocarbon resins and may be used on interior, exterior, vertical and horizontal concrete surfaces. Once applied, they form a liquid membrane that retains an optimum amount of water present in freshly placed concrete to allow complete hydration of the cement. NOTE: After approximately 4 weeks, the membrane begins to chemically break down. When the curing cycle is complete, the membrane will eventually wear off the surface. This process usually takes another 3 to 5 weeks under normal traffic and weathering conditions.

USES:
The 1100-CLEAR Series has been used on both interior and exterior applications where paint, resilient tile or resilient flooring was applied later. Because of the wide variety of paints and adhesives for carpeting and resilient tile in use, contact the manufacturer of the flooring system for application approval over resin-type curing compounds. A small test application is also recommended.

FEATURES / BENEFITS:
- When properly applied, 1100-CLEAR produces a premium-grade film, which optimizes water retention.
- Furnished as a ready-to-use, true water-based compound.
- Produces hard, dense concrete ... minimizes hair checking, thermal cracking, dusting, and other defects.
- Offers a compressive strength significantly greater than improperly cured or uncured concrete.
- Increases tensile strength for greater resistance to cracking and surface crazing.
- Improves resistance to abrasion and the corrosive actions of salts and chemicals Minimizes excessive shrinkage.
- Can be applied quickly and easily with conventional commercial spray equipment.
- Formulations also available with red fugitive dye added.
- VOC-compliant.

PACKAGING:
5 gallon pails
55 gallon drums

COVERAGE:
Approximately 200 ft.²/ gal. Coverage rate may vary depending on conditions, as well as the porosity and condition of the concrete.

SPECIFICATIONS:
- AASHTO M 148, Type 1, Classes A & B (Type 1-D also available)
- ASTM C 309, Type 1, Classes A & B (Type 1-D also available)
1600-WHITE WAX-BASED
Resin-Based, Water Emulsion Concrete Curing Compound

The 1600-WHITE series of water-based, white pigmented concrete curing compounds are wax-based dispersions with selected white pigments. When properly applied, 1600-WHITE forms a premium-grade membrane, which optimizes water retention. The white pigment reflects the sun's rays to help keep the concrete surface cooler and prevent excessive heat buildup.

USES:
1600-WHITE is ideal for application on exterior, horizontal surfaces, such as highways, airports, and street and curb paving. 1600-WHITE is not recommended for residential applications. The product provides optimum curing when protection from the sun's heat is desired.

FEATURES / BENEFITS:
- When properly applied, provides a premium grade film, which optimizes water retention.
- Protects by reflecting the sun's rays to keep the concrete surface cooler and prevent excessive heat buildup, which can cause thermal cracking.
- Furnished as a ready-to-use, true water-based compound.
- Produces hard, dense concrete ... minimizes hair checking, thermal cracking, dusting and other defects.
- Offers a compressive strength significantly greater than improperly or uncured concrete.
- Increases tensile strength for greater resistance to cracking and surface crazing.
- Improves resistance to the abrasion and corrosive actions of salts and chemicals ... minimizes shrinkage.
- Applies quickly and easily with conventional commercial spray equipment.
- VOC compliant … VOC content is <100 g/L.

TECHICAL DATA:
Drying Time: Typically dries in two hours, depending on jobsite conditions (temperature, wind, etc.). Restrict foot traffic for at least four hours.

PACKAGING:
- 5 gallon pails
- 55 gallon drums

COVERAGE:
Approximately 200 ft.² / gal. Coverage rates may have to be adjusted in windy conditions.

SPECIFICATIONS:
- ASTM C 309, Type 2, Class A
- AASHTO M 148, Type 2, Class A
- FAA Spec. Item P-610-2.11 (e)

PennDOT Approved
MasterKure® ER 50
Evaporation Reducer

Formerly Confilm

MasterKure ER 50 evaporation reducer reduces surface moisture evaporation from freshly placed concrete, especially in rapid drying conditions, such as high concrete surface or ambient temperatures, low humidity, high winds, direct sunlight, or work in heated interiors during cold.

PRODUCT HIGHLIGHTS:
• Does not affect concrete strength (early and ultimate), abrasion resistance, and durability
• Reduces or eliminates crusting, stickiness, and underlying sponginess resulting in a consistent surface
• Allows reduced slump and water content in concrete to facilitate proper hydration of high-strength mixtures
• Reduces surface moisture evaporation approximately 80% in wind and approximately 40% in sunlight to reduce plastic shrinkage cracking and wind crusting
• Prolongs surface plasticity for longer working time in hot, dry, or windy conditions.

APPLICATIONS:
• Concrete surfaces where the evaporation rate exceeds the bleed rate
• Air-entrained and non-air-entrained concrete
• Silica-fume concrete
• Concrete containing fly ash

PACKAGING:
1 gallon cans
5 gallon pails
55 gallon drums

YIELD:
One gallon of MasterKure ER 50 mixed with nine gallons of water yields 10 gallons of sprayable solution.
10 gallons of MasterKure ER 50 solution (1 to 9) should cover 2,000–4,000 ft² of fresh concrete.

If more than one application is required, e.g., in adverse drying conditions, additional material will be required.

PennDOT Approved
MasterKure CC 300 SX

Exempt-solvent-based, transparent, acrylic, high-gloss curing, sealing & dustproofing compound

Formerly Kure-N-Seal 30 ES
Kure-N-Seal™ 30 ES is a transparent, 30% solids, exempt-solvent-based, acrylic curing membrane. Apply it to damp or dry surfaces to provide a high-gloss finish.

FEATURES:
- 30% Solids by weight
- Solvent-based
- Abrasion resistance
- Curing compound
- Sealer and dustproofer
- Yellowing resistant

YIELD
Ft²/gallon per coat:
- Curing coat: 200 – 400
- Dustproofing and sealing coat: 400 – 600
- Renovating, dustproofing, and sealing: 200 – 300

Coverage varies with application method, texture, and porosity of surface

BENEFITS:
- Yields attractive high gloss finish
- Excellent blush/whitening resistance
- Excellent durability to foot traffic
- Efficiently retains moisture for freshly placed concrete; ensures proper strength development; minimizes shrinkage cracking
- Makes surfaces easier to clean and maintain
- Substrates maintain their original appearance

WHERE TO USE:
APPLICATION
- Residential concrete
- Decorative concrete
- Stamped concrete
- Colored concrete

LOCATION
- Exterior

SUBSTRATE
- Freshly placed concrete
- Finished concrete
- Aged concrete

PACKAGING:
MasterKure CC 300SX
- 1 gallon can
- 5 gallon pails
- 55 gallon drums
EXPO-GLOSS® OTC
“Wet-Look” Exposed Aggregate Solvent-Based Sealer

EXPO-GLOSS OTC exposed aggregate sealer is a transparent, high solids, film-forming, curing, sealing and dust-proofing compound that improves resistance to staining and wear. EXPO-GLOSS OTC is specifically formulated to enhance the beauty of natural stone in exposed aggregate surfaces, while providing maximum surface protection. When properly applied, EXPO-GLOSS OTC produces a glossy “wet look” finish. Brown tint only.

USES:
EXPO-GLOSS OTC is ideal for freshly finished exposed aggregate surfaces. It is also equally applicable for use on old exposed aggregate surfaces.

FEATURES / BENEFITS:
- Provides shiny, wet look … enhances the beauty of natural stone in exposed aggregate.
- Permeable film allows moisture in cured concrete to evaporate.
- Available in Merrimac Brown formulation.
- Applies easily to freshly finished or old exposed aggregate surfaces.
- Dries quickly once applied.
- Cure, seal, and dustproof with a single product.
- Improves resistance to staining and wear.
- Ready to use.
- VOC compliant … VOC = 325 g/L

SPECIFICATIONS
ASTM C 309, Type I Classes A & B
ASTM C 1315, Type I, Class A
AASHTO M 148, Type 1, Classes A & B

COVERAGE
Coverage is 300 – 600 ft.²/gal., depending on surface finish/texture.

PACKAGING
1 gallon cans
5 gallon pails
DIAMOND CLEAR 350
Non-yellowing, Low VOC, Exempt Solvent Based Concrete Curing Compound And Cure & Seal

Diamond Clear 350 is a low VOC, non-yellowing concrete curing compound and cure & seal used to cure and seal exterior concrete. Diamond Clear 350 is formulated with a unique exempt solvent blend that gives this product all the performance benefits of traditional solvent based curing and sealing products while ensuring compliance with VOC laws in regulated areas.

PRIMARY APPLICATIONS:
- Curing and sealing concrete surfaces
- Parking garages
- Walls and columns
- Dry shake hardened floors

FEATURES / BENEFITS:
- Maintains adequate moisture in new concrete so that strength and durability properties can develop
- Will not yellow under ultraviolet exposure
- Slower drying than products based on acetone or tert-butyl acetate exempt solvents
- Low VOC content

Typical Engineering Data
The following results were developed under laboratory conditions:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Drying time* @ 73°F (24°C), 50% RH</td>
<td>&lt;1 hour</td>
</tr>
<tr>
<td>Recoat</td>
<td>to 24 hours</td>
</tr>
<tr>
<td>Foot traffic</td>
<td>2 to 4 hours</td>
</tr>
<tr>
<td>Wheel traffic</td>
<td>6 to 10 hours</td>
</tr>
<tr>
<td>VOC content</td>
<td>320 g/L</td>
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<tr>
<td>Flash Point</td>
<td>63°F (17°C)</td>
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<tr>
<td>Resistance to yellowing</td>
<td>excellent</td>
</tr>
<tr>
<td>Solids content</td>
<td>15%</td>
</tr>
<tr>
<td>Moisture loss ASTM C 156</td>
<td>55 kg/m²</td>
</tr>
</tbody>
</table>

*Low concrete or air temperatures and/or high relative humidity will extend drying times and appearance.

Appearance: Diamond Clear 350 is a clear liquid that after drying provides a clear, glossy film.

PACKAGING: 55 gal drums and 5 gal pails.

COVERAGE:

<table>
<thead>
<tr>
<th>Application</th>
<th>First Coat</th>
<th>Second Coat</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft²/gal (m²/L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curing and Sealing New Concrete</td>
<td>300 to 400</td>
<td>400 to 450</td>
</tr>
<tr>
<td>Sealing Older Concrete</td>
<td>450 to 550</td>
<td>400 to 450</td>
</tr>
</tbody>
</table>
VOCOMP® -20, 25, 30
Water-Based, Acrylic, Concrete Curing and Sealing Compound

VOCOMP-20

VOCOMP-20 water-based acrylic curing and sealing compound is formulated using special acrylic polymers in a true water-based carrier. Once properly applied, VOCOMP-20 provides a durable film for efficient moisture retention. VOCOMP-20 appears milky white in the container and, when first applied, leaves a bluish cast on the concrete for easy visual confirmation of coverage. VOCOMP-20 dries clear to provide a transparent sheen finish. The sheen can be controlled by the number of coats applied. VOCOMP-20 resists yellowing from ultraviolet exposure and provides a durable, long-lasting finish that offers improved resistance to chemicals, petroleum, and abrasives.

VOCOMP-25

VOCOMP-25 water-based acrylic concrete sealer is a ready-to-use concrete curing and sealing compound formulated of special acrylic polymers in a true water-based carrier. VOCOMP-25 provides improved resistance to rain, sun, freezing temperatures, most acids and industrial chemicals, petroleum, deicing salts, cleaning agents (except aromatic solvents), diluted caustics, and other pollutants.

VOCOMP-25 appears milky white in the container and, when first applied, leaves a bluish cast on the concrete for easy visual coverage. VOCOMP-25 dries clear to provide a transparent sheen finish. This sheen can be controlled by the number of coats applied.

VOCOMP-30

VOCOMP-30 is a ready-to-use, 30% solids concrete curing and sealing compound formulated of special acrylic polymers in a true water-based carrier. VOCOMP-30 provides improved resistance to rain, sun, freezing temperatures, most acids and industrial chemicals, petroleum, deicing salts, cleaning agents (except aromatic solvents), diluted caustics, and other pollutants.

Color-wise, VOCOMP-30 appears milky white in the container and, when first applied, leaves a bluish cast on the concrete for easy visual coverage. VOCOMP-30 dries clear to provide a transparent sheen finish. This sheen can be controlled by the number of coats applied.

SPECIFICATIONS:
ASTM C 309, Type 1, Class B
AASHTO M 148, Type 1, Class B
Dried film is USDA accepted.
Curing & Sealing

PACKAGING:
5 Gallon Pails
55 Gallon Drums
MasterKure CC 180 WB
Waterborne acrylic curing, sealing and dustproofing compound

Formerly Kure-N-Seal
MasterKure CC 180 WB is a modified acrylic-based liquid polymer. It is recommended for use on new or existing concrete floors as classified in ACI Guide 302, Table 1.

PRODUCT HIGHLIGHTS:
• Ensures high curing efficiency allowing concrete to attain its full-strength potential
• Reduces surface absorption and dusting of concrete for easier cleaning and maintenance
• Retains moisture in concrete to minimize shrinkage cracking
• VOC compliant for EPA and most regional jurisdictions
• Compatible with most carpet and tile adhesives

FOR BEST PERFORMANCE
• For curing only, one coat may be sufficient; two coats will give best results. To seal and dustproof, two coats are required.
• Not recommended for use in colored dry-shake applications
• Keep from freezing.
• Do not apply when concrete surface or ambient temperature is below 40° F.
• Do not apply when surface temperature is above 120° F.
• Not recommended as a release agent.
• Do not apply to surfaces of joints to be caulked with sealants. Mask joints to avoid sealant adhesion problems.
• Can be applied to natural or colored concrete, but mottling or discoloration may occur.
• May highlight features and imperfections of the concrete surface.

YIELD:
Curing only: 200 – 400 ft²/gallon
Second coat (dustproofing and sealing): 400 – 600 ft²/gallon
Recoating, dustproofing and sealing: 200–300 ft²/gallon
Coverage varies with application method, texture and porosity of surface.

PACKAGING:
5 gal. pails; 55 gal. drums

Color - Milky white; dries clear

Shelf Life - 15 months when properly stored

Storage - Store in unopened containers in a clean, dry area between 40 and 85° F. Keep from freezing.

Curing & Sealing

APPLICATION
• Interior and exterior
• Vertical and horizontal surfaces
• Curing freshly placed & finished concrete
• Sealing & dustproofing existing concrete

SUBSTRATE
• Concrete
ARDEX CG
Concrete Guard

ARDEX CG™ is a high-performance, high solids concrete sealer that is easy to apply, quick drying, nonflammable and UV stable. Applied at a minimum of two coats, ARDEX CG is designed to protect all interior and exterior absorbent concrete and masonry surfaces on residential and commercial applications, including driveways, sidewalks, patios, courtyards, walkways, pool decks and most vertical concrete surfaces. It is especially suited to seal ARDEX toppings, and the gray version can be used to create a uniform appearance over both a repaired area and the adjacent concrete or masonry surfaces.

ARDEX CG is durable and abrasion resistant. When applied properly, ARDEX CG creates a non-porous coating approved for incidental food contact that will perform well under a daily regimen of thorough cleaning, as well as cyclical temperature changes and wet conditions.

Technical Data According To ARDEX Quality Standards
Physical properties are typical values and not specifications.

| Drying Time (minimum at 70°F): | To touch: 1 hour |
| Apply second coat: | 2 to 4 hours |
| Receive normal traffic | 24 hours |
| Colors: | Gray and clear |
| Coverage for Gray: | Over broom finish: 150 - 200 sq. ft. per gal. Over smooth finish: 200 - 400 sq. ft. per gal |
| Coverage for Clear: | Over broom finish: 200 - 300 sq. ft. per gal. Over smooth finish: 400 - 600 sq. ft. per gal |

PACKAGING:
1 gal.

MIXING AND APPLICATION:
Due to the high percentage of solids, settling will occur during storage. For this reason, the contents of the container must be mixed thoroughly just prior to use to ensure a uniform consistency.

For best results, mix with a mechanical mixing paddle and low speed drill. Once the concrete surface is prepared as outlined above, thoroughly broom-sweep and vacuum the area to be sealed to remove any fine dust or dirt. Make sure the concrete is completely dry to avoid the possibility of discoloration during cure.
MasterProtect H 1000
High-performance, clear, breathable, 100% silane penetrating sealer

Formerly Hydrozo 100
MasterProtect H 1000 is a clear, breathable, high-performance, 100% silane, water repellent sealer that achieves highest depth of penetration.

PRODUCT HIGHLIGHTS:
- No masking of windows necessary and requires no cleaning after application
- No residue, will not harm glass windows, metal frames, or painted surfaces
- 100% silane - protects against chloride ion penetration
- Excellent depth of penetration
- Breathability allows interior moisture to escape without damaging sealer
- Solvent based, excellent for cold weather applications
- Protects the structure from damage caused by wind-driven rain
- Does not alter surface appearance
- Surface sealer helps reduce efflorescence, atmospheric staining, and mildew
- Superior water repellence so it penetrates deeply and chemically reacts within the pores of concrete to provide long-lasting protection
- Abrasion resistant so it provides long-lasting protection to horizontal substrates subject to traffic, such as bridge decks and highway surfaces

APPLICATIONS:
- Interior and exterior
- Horizontal and vertical
- Above grade
- Traffic-bearing concrete substrates
- Bridge decks and substructures
- Concrete highway surfaces
- Ramps and barrier rails
- Parking garages
- Buildings
- Stadiums
- Many other reinforced concrete structures

PACKAGING: 5 gallon pails
55 gallon drums

YIELD: 250 – 400 ft²/gal
Coverage may vary greatly with porosity of the substrate; extreme porous substrate may require two coats.

Perform test panels to ensure desired results and coverage rates.

SUBSTRATES:
- Concrete
- Brick and masonry
- Stucco

VOC CONTENT:
Less than 350 g/L less water and exempt solvents.

COLOR:
Clear.
MasterKure HD 100WB
Curing aid, hardening & dustproofing compound for concrete

Formerly Sonosil®

MasterKure HD 100WB is a clear water-soluble, sodium-silicate-based hardening and dustproofing compound. It is easy to apply, leaves no residue, dries quickly, and is available with fugitive red dye for even application.

RECOMMENDED USES:
- Floors and walls
- Decks
- Docks
- Ramps

FEATURES:
- Residue-free
- Available with fugitive red dye
- Soil and grease easily removed
- Water-soluble
- Easy to apply, quick drying

BENEFITS:
- Compatible with most resilient floor-covering adhesives
- Helps ensure even coverage
- Promotes fast, simpler post-construction clean up
- Easy to flush spray equipment and clean other equipment
- Saves labor costs; speeds production

PACKAGING:
- 5 gallon pails
- 55 gallon drums

YIELD: 150 – 200 ft²/gal
Coverage may vary with application method, surface conditions, & porosity.

Formerly Kure-N-Harden™

MasterKure HD 200WB is a water-soluble, inorganic, silicate-based curing, hardening, sealing and dustproofing compound. Use it for freshly placed and finished concrete and in renovation of aged concrete.

PRODUCT HIGHLIGHTS:
- Protects floors during construction
- Easy to apply and quick drying for quick turnaround
- Water based; no VOCs and easy to clean up
- Aids curing of concrete; minimizes shrinkage cracking and improves strength development
- Hardens concrete to withstand moderately heavy duty traffic
- Improved abrasion resistance to extend wear ability.

APPLICATIONS
- Interior and exterior
- Above or below grade
- Concrete floors and pavements
- Curing of fresh concrete
- Renovation of aged concrete

PACKAGING:
- 5 gallon pails
- 55 gallon drums

YIELD: 150 – 200 ft²/gal
Coverage may vary with application method, surface conditions, & porosity.
MasterProtect H 400
Water-based 40% silane penetrating sealer

Formerly Enviroseal® 40
MasterProtect H 400 is a water-based, 40% alkylalkoxysilane penetrating sealer. It provides long-lasting protection against moisture intrusion, freeze/thaw cycles, and chloride intrusion. It is ideal for traffic-bearing surfaces.

RECOMMENDED USES:
- Interior or exterior
- Horizontal and vertical
- Above grade
- Parking garages
- Stadiums
- Bridge decks
- Concrete highway road surfaces
- Ramps and barrier rails
- Many other reinforced concrete structures

BENEFITS:
- Excellent penetration protecting against damage from moisture intrusion and chloride ion penetration
- Breathable to allow interior moisture to escape without damaging sealer
- One component for ease of application

SUBSTRATE
- Concrete substrates: architectural, glass-fiber-reinforced, precast, cast in place, silica fume
- New and existing concrete

PACKAGING:
- 5 gallon pails
- 55 gallon drums

YIELD:
Concrete: 100 – 200 ft²/gal
Brick: 100 – 200 ft²/gal

Always apply a test area to determine actual coverage rates. Coverage rates will vary greatly with the porosity of the substrate.

COLOR:
Milky white liquid; clear when dry

PennDOT Approved
SALTGUARD WB

Consolideck® Saltguard® WB is a ready-to-use water-based, VOC compliant silane/siloxane water repellent and “chloride screen” for the protection of concrete and masonry surfaces. Saltguard® WB penetrates more deeply than conventional water- or solvent-based water repellents. Low odor and alkaline stable, Saltguard® WB is ideal for field or in-plant application to concrete and most masonry surfaces. Saltguard® WB protects horizontal and vertical surfaces from moisture intrusion and chemical attack of chloride salts.

Saltguard® WB’s Volatile Organic Compound (VOC) content is less than 250 grams/liter. Saltguard® WB reduces rebar corrosion and surface spalling caused by water-carried salts. Saltguard® WB may be used on horizontal surfaces such as driveways, sidewalks, tile or brick pavers. Provides excellent protection for retaining walls, bridge pilings and other vertical areas exposed to deicing salts. Saltguard® WB is a ready-to-use effective alternative to conventional solvent-based silanes or siloxanes. Saltguard® WB penetrates and chemically bonds deep within the concrete or masonry substrate to provide long-lasting protection against moisture intrusion and water-related staining or deterioration. Properly applied, Saltguard® WB produces no surface film. Treated surfaces keep their natural breathing characteristics and natural appearance.

ADVANTAGES:
• Penetrates deeply to produce long-lasting protection on vertical or horizontal surfaces.
• Water-based formula minimizes explosion and fire hazards associated with alcohol- or solvent-based water repellents.
• Easy soap-and-water cleanup from window glass, window frames and application equipment.
• Low odor reduces risk of application to occupied buildings.
• Alkaline stable — suitable for new “green” concrete.
• Ideal for field or in-plant treatment of concrete or GFRC.
• Effective protection against deicing salts and salt air.

LIMITATIONS:
• Will not prevent water penetration through structural cracks, defects or open joints.
• Limited initial surface repellency.
• When applied to pH neutral surfaces, optimal performance may take up to 14 days to develop.

COVERAGE RATES:
Coverage varies based on substrate porosity and texture.
  100 - 300 sq. ft. / gal

PennDOT Approved
SILOXANE PD
Long-lasting, prediluted water repellent

Sure Klean® Weather Seal Siloxane PD (predilute) is a ready-to-use, water-based silane/siloxane water repellent for concrete and most masonry and stucco surfaces. Siloxane PD will not impair the natural breathing characteristics of treated surfaces. It helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Siloxane PD is ideal for field and in-plant application.

ADVANTAGES:
• Penetrates deeply for long-lasting protection on vertical or horizontal surfaces.
• Service life is estimated at more than 10 years.
• Treated surfaces “breathe”; doesn't trap moisture.
• Water-based formula minimizes explosion and fire hazards compared to solvent based water repellents.
• Easy cleanup with Enviro Klean® 2010 All Surface Cleaner.
• Low odor for safer application to occupied buildings.
• Alkaline stable – suitable for new “green” concrete, 14–28 days old.
• Ready-to-use. No on-site dilution required.
• Complies with all known national, state and district AIM VOC regulations.

LIMITATIONS
• Will not keep water out of cracks, defects or open joints.
• Not recommended for below-grade application.
• Not suitable for application to synthetic resin paints, gypsum, or other non masonry surfaces.

DRYING TIME
Treated surfaces dry to touch in 1 hour. Protect surfaces from rainfall for 6 hours following treatment. Protect from foot and vehicle traffic until visibly dry. Siloxane PD gains its water repellency properties in 72 hours.

APPLICATION INSTRUCTIONS:
For best results, apply “wet-on-wet” to a visibly dry and absorbent surface.

Vertical Surfaces: Sprayer
Saturate from the bottom up, creating a 4–8” rundown below the spray contact point. Let the first application penetrate for 5–10 minutes. Resaturate. Less will be needed for the second application.

Vertical Surfaces: Brush or Roller
Saturate uniformly. Let penetrate for 5–10 minutes. Brush out heavy runs and drips that don't penetrate.

Horizontal Surfaces
Saturate in a single application. Use enough to keep the surface wet for 2–3 minutes before penetration. Broom out puddles until they soak in.

Curing & Sealing
DENSICRETE

DensiCrete is a unique and comprehensive concrete treatment formulated and manufactured by WICKTEC, Inc.

DensiCrete, due to its unique formulation, has the following key characteristics:

- Penetrates Deeply into Concrete Matrix
- Prevents Carbonation
- Stops Freeze/Thaw Deterioration
- Inhibits Rebar Corrosion Activity in Concrete
- Cleanses Concrete
- Waterproofs Concrete
- Densifies Concrete
- Increases Compressive Strength
- Increases Flexure Strength
- Contains No Toxic Materials
- Contains No Hazardous Materials

USE ON EXISTING OR NEW CONCRETE, BRICK, LIMESTONE OR OTHER CEMENTITIOUS MATERIALS.

Application of DensiCrete to roads and bridges normally requires 1.5 coats, both of which will be fully absorbed into the concrete structure.

Because DensiCrete has a normal spread rate of 150 sq. ft. per gallon (equal to an 11 mil coat), 1.5 coats can be easily accomplished using the spray procedure.

DensiCrete normally is applied using 40 psi pressure spraying equipment, although it can be brushed or rolled on.

PennDOT Approved
VEXCON
Certi-Vex Linseed Antispall

Protects concrete from freeze thaw cycles, corrosive salts and extends the service life of concrete.

Certi-Vex Linseed Antispall is an advanced formulation of 50% boiled linseed and solvents manufactured with special additives to maximize the antispalling protection of concrete. When properly applied to cured concrete, Certi-Vex Linseed Antispall acts as a barrier protecting the concrete from potential damage from freeze/thaw cycles and corrosive salts.

BENEFITS:
- Life expectancy of concrete greatly extended
- Maximum penetration when properly applied
- Protection against freeze/thaw cycles and corrosive salts
- Minimizes maintenance and repair costs
- Meets all standard state specification and in most areas is available pre-approved for use.
- Can apply to 20°F - Request Cold Weather Application Guide.

APPLICATION:
Apply Certi-Vex Linseed Antispall to cured concrete that is at least 28 days old. Do not add thinner as product is supplied at the proper consistency for spraying. Dilution will reduce efficiency. Thoroughly mix with mechanical methods before use to ensure best result and ease of application. Apply by brush, roller or sprayer, however, application by sprayer is preferred.

PROPERTIES:
- Color: 10-11 Gardner
- Dry Time: (200 sq.ft. / gal) 3 hours
- Solids: 50 / 50 in mineral spirits by volume
- Solvents: Mineral Spirits
- Wt/Gal: 7.14

VITAL STATISTICS:
- Flash Point: 106°F TCC typical
- Boiling Point: 310 - 405°F
- Autoignition temp: ND
- Extinguishing media: Foam, dry chemical, CO₂, water fog or spray.

PACKAGING:
- 5-gal. pails
- 55-gal. drums

PennDOT Approved
SAVING TIME! - Once you properly, your curing work and worry is over. No rewetting, no re-sealing of exposed areas. SAVE WATER! - Because needs no re-wetting, you save the cost of thousands of gallons of water plus your water wagon costs. SAVE LABOR! - You also save the cost of laborers who must keep the surface wet with ordinary methods. SAVE REPLACEMENT! - Can be used over and over again-field tests on actual jobs indicate that can be used as many as 30 times. This continuous usage greatly reduces your cost of curing material per job. The multiple uses custs curing costs to a minimum.

Here's The Secret of Effectiveness!

Bur Lene has the strength and water distribution features of 10 oz. burlap combined with the moisture-retention and reflective features of 4 mil white opaque poly, extruded into burlap.

Now, at last, you can be sure of perfect curing every time, with just a single application. Designed specifically for the curing of concrete slabs, such as bridge decks, highways, buildings, airport runways, military installations, etc., Bur Lene offers two important functions that make the big difference in results.

First- Bur Lene burlap layer distributes water evenly (much like the wick in an oil lamp) so no dry spots occur. Second- Bur Lene white opaque poly layer holds in the moisture and reflects the sun’s rays to keep the concrete wet and cooler at a more even temperature, for as many as nine days -this has been proved by actual field test on Federally aided state projects!

Combine both of these features and you have the answer to perfect concrete curing -it’s yours, exclusively with Bur Lene! What’s more, the Bur Lene method of curing keeps every engineer satisfied, and eliminates any need for frequent checking of the job. Bur Lene has already proved its great advantages in many areas, and is being approved as one of the most effective, most economical methods of concrete curing on the market today.

PennDOT Approved

CURING BURLAP

Burlap for curing concrete conforms to requirements of AASHO designation M-182, Class 1 for burlap cloth.
Stocked in 60 inch x 100 yard rolls.

PennDOT Approved
SYNTHETIC BURLENE

Synthetic Burlene is a non woven synthetic fabric extrusion laminated to 4 mil white reinforced polyethylene.

*Max Katz Bag Co., Inc. the inventor of the original BurLene* over 30 years ago, is proud to offer our new Synthetic BurLene which is **Lighter – Lasts longer –** Holds more water than our original BurLene and is **Stronger** than any similar product on the market.

**DESCRIPTION:**
Non woven synthetic fabric extrusion laminated to 4 mil white reinforced polyethylene.

**LIGHTER:**
30% light in weight than BurLene – easier to handle.

**LASTS LONGER:**
This totally synthetic product does not rot and therefore greatly increases its’ usable life span.

**WATER RETENTION:**
Holds 30% more water by weight than Burlap or Burlene – less rewetting. And eliminates staining sometimes caused by burlap products.

**STRONGER:**
Our Synthetic BurLene has our exclusive white reinforced poly cover (*patent pending*) which makes it stronger and more durable than any product in its class.

**WEIGHT:**
57 lbs per 1000 s.f.

**SPECIFICATIONS:**
Meets AASHTO M-171 and ASTM C-171-69 for moisture retention standards per (ASTM C156) and light reflectance not less than 70% per AST E97.

**ROLL SIZES:**
12’ x 100’

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**Manufactured By:**
Max Katz Bag Company, Inc.
235 S. LaSalle Street
Indianapolis, IN 46201
Phone: (317) 635-9561
Curing & Sealing
On job after job, the long-lasting Insulated Curing Shield’s core of soft closed-cell foam, with thousands of tiny insulating air pockets, prevents fresh concrete’s heat of hydration from escaping too quickly.

The core’s insulation characteristics are unaffected by water. Each insulating air pocket is “suspended” within the foam itself. Lightweight and easy to handle, Insulated Curing Shield helps fresh concrete to cure in cold weather.

Fresh concrete has its own heat, in many instances the concrete’s own natural heat of hydration will be generated in sufficient quantity to be used as the only source of heat necessary during a three day curing cycle ... IF it is trapped and held....Insulated Curing Shields are an excellent product for this purpose.

With formed concrete walls, an Insulated Curing Shield can be simply “hung” over the top, down both sides and attached securely to the forms.

On above grade floor slabs, Curing Shields are laid on top of the slabs. Heat may be added from below depending on outside temperatures and insulation characteristics of supporting framework.
CONCRETE CURING BLANKETS

EXCEPTIONAL QUALITY & VALUE

Winter is approaching fast and cold temperatures are right around the corner, which means trouble when trying to cure concrete.

The solution is Commonwealth Canvas’s Cure-All® Concrete Curing Blankets. These enable you to keep working when the cold temperatures set in and protect concrete from the harsh elements that jeopardize proper curing. Built with heavy-duty reinforced poly coverings and webbed reinforced edges, these quality blankets will hold up for multiple uses. Made in the USA, our concrete curing blankets are made with the highest quality workmanship.

- Heavy Duty Reinforced Poly Coverings
- Webbed Reinforced Edges
- Rot Resistant Thread
- Closed Cell Polyethylene Foam
- Rust Proof Grommets
- “Stay Put” Buttons

Commonwealth Canvas premium quality “Cure-All” Concrete Curing Blankets are built for multiple uses. Immediate delivery is available. Made in the USA.

Standard size 6’ X 25’
POLYETHYLENE FILMS

Polyethylene films are used in all types of construction. From exterior walls, ceiling and sub-floor vapor barriers to wind breaks. From outside protection of construction materials and equipment to concrete curing. Manufactured in accordance with ASTM D 4397-84, standard specifications for polyethylene sheeting for construction and industrial applications.

CLEAR POLYETHYLENE

<table>
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<tbody>
<tr>
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<td>6 MILS</td>
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<tr>
<td>8 MILS</td>
<td>100’</td>
</tr>
<tr>
<td>10 MILS</td>
<td>100’</td>
</tr>
</tbody>
</table>

CONSTRUCTION SHEETING

Poly-America’s construction sheeting is made from polyethylene which provides for optimum in economy and performance. Because of its good weatherability, chemical inertness and toughness, Poly-America’s polyethylene sheeting has successfully been used for over 20 years in a wide variety of applications. Thickness ranges from as little as .3 mil for paint drop cloths to 100 mil for use as landfill liners. Widths range up to 40 ft. If you have a special application or need more information on our products, contact your area sales representative.

White Poly is PennDOT and WV DOT approved
DYMONIC FC

Fast-Curing, Low-Modulus, Silane End-Capped, Polyurethane Hybrid Sealant

Dymonic® FC is a low-modulus, one-component, moisture-cure, polyurethane hybrid sealant. Dymonic FC is formulated with proprietary silane end-capped polymer technology. Dymonic FC provides the best performance characteristics of polyurethane and silicone sealants.

PRIMARY APPLICATIONS:
Dymonic FC is a durable, flexible, sealant that offers excellent performance in moving joints and exhibits tenacious adhesion once fully cured. Typical applications for Dymonic FC include expansion and control joints, precast concrete panel joints, perimeter caulking (windows, door, panels), EIFS, aluminum, masonry and vinyl siding.

FEATURES / BENEFITS:
Dymonic FC is fast curing with a skin time of 60 minutes and a tack-free time of 3-4 hours to significantly reduce dirt pickup. It will not green crack due to early movement and has an exceptional movement capability of ± 35%. Dymonic FC is also low-VOC, paintable and will not crack or craze under UV exposure.

PACKAGING:
10.1 oz (300 mL) cartridges; 20 oz (600 mL) sausages.

SPECIFICATIONS / COMPLIANCES:
Dymonic FC meets or exceeds the requirements of the following specifications:
• ASTM C920 Type S, Grade NS, Class 35, Use NT, M, A and O
• ASTM C1248
• U.S. Federal Specification TT-S-00230C Class A, Type II
• CAN/CGSB 19.13-M87

JOINT DESIGN:
Dymonic FC may be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than ¼ in.

JOINT BACKING:
Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application.

PennDOT Approved
Vulkem 45SSL

One-Part, Semi-Self-Leveling Sealant

Vulkem 45SSL is a one-part, moisture-curing, low-modulus polyurethane sealant. It provides exceptional wear and tear resistance required in high traffic areas.

PRIMARY APPLICATIONS:
Vulkem 45SSL is formulated for use in expansion joints in sidewalks, swimming pool decks, plazas, floors and any other horizontal surface with slopes up to 6% (e.g. 1 in. rise for every 16 in. run).

FEATURES / BENEFITS:
Vulkem 45SSL is a traffic rated, pourable, semi-self-leveling sealant with exceptional primerless adhesion and movement capability. Vulkem 45SSL is suitable for continuous immersion in non-chlorinated water and can be applied to damp and green concrete. The technology in Vulkem 45SSL provides the sealant with greater UV resistance and will not out gas.

PACKAGING:
Quart (850mL) cartridges.

SPECIFICATIONS / COMPLIANCES:
Vulkem 45SSL meets or exceeds the requirements of the following specifications:
ASTM C920, Type S, Grade P, Class 35, Use T, M, A, O and I (Class 2).

JOINT DESIGN:
Vulkem 45SSL may be used in any horizontal joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 1/4 in. (6mm).

JOINT BACKING:
Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls. Backer rod needs to be properly friction fitted for use with self-leveling sealants to prevent leak out of sealant during cure. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application.

DAMP/GREEN CONCRETE:
Vulkem 45SSL can be applied to green concrete 24 hours after the forms have been removed. All concrete sealers or curing agents need to be removed by grinding before applying sealant. The concrete can be damp during application, but do not apply sealant where there is standing water in or close to the joints. It is recommended to catalyze with water when applying sealant on damp surfaces.
SPECTREM® 800

Low Modulus, Silicone Highway and Parking Structure Sealant

Spectrem 800 is a low modulus, high performance, one-part, gun grade, silicone parking structure and highway joint sealant.

PRIMARY APPLICATIONS:
Spectrem 800 has exceptional physical properties making them ideal for sealing the most demanding dynamically moving joints and horizontal applications. Formulated for highway, airport, bridge joints, and parking structures where high movement occurs.

PACKAGING:
Quart cartridges.

JOINT DESIGN:
May be used in any joint design in accordance with accepted highway/engineering practice. Spectrem 800 should be no thicker than 1/2” (12.7mm) and no thinner than 1/4” (6.4mm). Sealant accepts +100%/-50% of installed width; however, Tremco recommends joint movement design ±25% movement. Sealant surface should be recessed 3/8-1/2” below pavement surface.

PennDOT Approved
ROADSAVER 221 SEALANT

Crafco RoadSaver 221 sealant is a hot-applied asphalt based product used to seal and fill cracks and joints in asphalt or portland cement concrete pavements in moderate to cold climates. RoadSaver 221 is supplied in solid form which when melted and properly applied forms a resilient, adhesive and flexible compound that resists cracking in the winter and is resistant to flow and pick-up at summer temperatures. RoadSaver 221 is used in highway, street, and airfield pavements and is applied to pavement cracks and joints using either pressure feed melter applicators or pour pots. At application temperature RoadSaver 221 is a free flowing, self-leveling product. RoadSaver 221 is a widely used, excellent performing sealant that has been a quality Crafco product for 25 years. VOC = 0 g/l.

SPECIFICATIONS / COMPLIANCES:
RoadSaver 221 meets all requirement of ASTM D6690 (AASHTO M324), Type II, “Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements”, (formerly ASTM D3405 and ASHTO M301). It also exceeds requirements of ASTM D6690 (AASHTO M324), Type I, (formerly ASTM D1190, AASHTO M173), and Federal Specification SS-S-164.
MASTERSEAL® NP 1™
Formerly Sonolastic NP1

One-component, elastomeric, gun-grade polyurethane sealant
MasterSeal NP 1 is a one-component, high-performance, non-priming, gun-grade, elastomeric polyurethane sealant. It requires no mixing and typically requires no priming to bond to many materials, including concrete and masonry.

FEATURES / BENEFITS:
- One-component formula requires no mixing, helping to reduce labor costs
- Joint movement capability ±35% provides excellent flexibility for keeping moving joints weathertight
- Easy to gun and tool, speeding up application and making neater joints
- Available in ProPaks, reducing jobsite waste, lowering disposal costs
- 12 standard colors to match a wide variety of common substrates
- No primer required for most construction materials lowering installation costs
- Weather resistant for long-lasting weathertight seals
- Wide temperature application range makes MasterSeal NP 1 suitable for all climates
- Compatible with non-rigid coatings and can be painted
- Superior holding power for long-lasting roof tile installation
- UL listed; Passes 4-hour, 4-inch, fire and hose stream test when used with Ultra Block or mineral wool
- Suitable for water immersion with documented performance in wet areas
- Meets VOC requirements in all 50 states

APPLICATIONS:
- Interior and exterior
- Above and below grade
- Immersed in water
- Expansion joints
- Panel walls
- Precast units
- Aluminum & wood window frames
- Roofing
- Fascia & Parapets
- Vinyl siding
- Store front assemblies

SUBSTRATES:
- Concrete
- Masonry
- Aluminum
- Wood
- C lay & concrete roof tiles
- Stucco
- Natural stone

COMPLIANCES:
- ASTM C 920, Type S, Grade NS, Class 35, Use NT, M, A, T, O* and I
- Federal Specification TT-S- 00230C, Type II, Class A
- Corps of Engineers CRD-C- 541, Type II, Class A
- Canadian Specification CAN/CGSB-19.13-M87
- Classification MCG-2-25-A-N, No. 81026
- CFI accepted
- USDA compliant for use in meat and poultry areas
- Underwriters Laboratories Inc.* classified (fire resistance only)
- ISO 11600-F-25LM

PennDOT Approved
FIBRE EXPANSION JOINT
Multi-Purpose, Expansion-Contraction Joint Filler

FIBRE EXPANSION JOINT is composed of cellular fibers securely bonded together and uniformly saturated with asphalt to assure longevity. Wherever a cost-effective joint filler is required, FIBRE EXPANSION JOINT meets the need. Manufactured and marketed by W. R. Meadows since the early 1930s, FIBRE EXPANSION JOINT is backed by over 80 years of proven application experience. FIBRE EXPANSION JOINT is versatile, resilient, flexible and non-extruding. When compressed to half of its original thickness, it will recover to a minimum of 70% of its original thickness. FIBRE EXPANSION JOINT will not deform, twist, or break with normal on-the-job handling.

APPLICATIONS:
FIBRE EXPANSION JOINT is ideal for use on highways, streets, airport runways, sidewalks, driveways, flatwork, and scores of commercial and industrial applications subject to pedestrian and vehicular traffic.

FEATURES / BENEFITS:
• Provides the ideal product for the majority of all expansion/contraction joint requirements.
• Non-extruding ... versatile ... offers a minimum 70% recovery after compression.
• This tough, lightweight, easy-to-use, semi-rigid joint filler is available in strips and shapes fabricated to your requirements.
• Easy to cut ... dimensionally stable ... not sticky in summer or brittle in winter.
• Provides neat, finished joints requiring no trimming.
• Often copied ... but never equaled.
• Remains the standard of the industry today ... with over 80 years of proven and satisfactory performance.
• Can be punched for dowel bars and laminated to thicknesses greater than 1”.

SPECIFICATIONS AND SIZE INFORMATION

<table>
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<tr>
<th>Conforms to or meets:</th>
<th>Thickness</th>
<th>Slab Widths</th>
<th>Standard Lengths</th>
<th>Weight per ft.³</th>
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<tr>
<td>AASHTO M 213</td>
<td>3/8”, 1/2” , 3/4”, 1”</td>
<td>36”, 48”</td>
<td>10’</td>
<td>&gt;19 lb.</td>
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<td>Corps of Engineers CRD-C 508</td>
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</table>

PennDOT Approved
PLASTIC JOINT MATERIALS
SPEED-E-JOINT® SNAP-CAP®

SPEED-E-JOINT
Preformed Contraction Joint

SPEED-E-JOINT consists of two solid pieces that have been pre-assembled for easy handling and installation. SPEED-E-JOINT offers an ideal solution to controlling cracks in concrete. It is a rigid preformed contraction joint that produces a straight-line crack on the surface of concrete slabs and locks into the aggregate just below the surface. SPEED-E-JOINT is strong, economical, and eliminates waste in providing straight lines. It is quick and easy to install. The top section pulls free once the joint has been placed correctly in the wet concrete. Furnished in three depths: 1”, 1.5” and 2” (25.4 mm, 38.1 mm and 50.8 mm). Standard length is 10’.

To install SPEED-E-JOINT, press a straight edge cutting tool into the wet concrete to part the aggregate in a straight line. Place SPEED-E-JOINT into the separation until the top segment lays on the surface of the wet concrete. Remove the top. Float concrete to fill all voids adjacent to SPEED-E-JOINT and finish in the normal manner.

SNAP-CAP
Expansion Joint Cap

SNAP-CAP provides a time- and cost-saving method for forming straight, uniform, and debris-free joints of the proper configuration, ready to seal. The top of SNAP-CAP pulls free and can be discarded. The exposed concrete surfaces assure balanced adherence to the sides. It is ideal for both horizontal and vertical concrete projects. SNAP-CAP is available in four widths.

To install, slide SNAP-CAP over the top of the expansion joint. Place the concrete and screed to finish grade as usual. When concrete is cured, insert a screwdriver through the top of SNAP-CAP, pull free and discard. The joint is ready to seal.

<table>
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<tr>
<th>TYPE</th>
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<tr>
<td>SPEED-E-JOINT</td>
<td>N/A</td>
<td>1” (25.4 mm)</td>
<td>10’ (3.05 m)</td>
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<tr>
<td></td>
<td></td>
<td>1 ½” (38.1 mm)</td>
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<td></td>
<td></td>
<td>2” (50.8 mm)</td>
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<tr>
<td>SNAP-CAP</td>
<td>3/8” (9.53 mm)</td>
<td>1/2” (12.7 mm)</td>
<td>10’ (3.05 m)</td>
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<td>1/2” (12.7 mm)</td>
<td>3/4” (19.05 mm)</td>
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<td>1” (25.4 mm)</td>
<td>1/2” (12.7 mm)</td>
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</table>
**RUBBER EXPANSION JOINT MATERIAL**

Meets or exceeds the performance requirements of ASTM D1751-97 & D1752-84

Reflex® Rubber Expansion Joint Material for concrete is a processed board product formed by blending granular crumb rubber derived from discarded tires and various low density polymer components. Reflex® Rubber is pre-molded under heat and pressure and far more durable than current alternatives.

Reflex® Rubber is suitable for use as expansion or control joint in a wide variety of concrete construction projects such as roadways, sidewalks, driveways, flooring, parking lots, patios, and curbs.

**Go Green!** Reflex® Rubber is made of 100% recycled materials!

REFLEX® Rubber Expansion Joint Material for Concrete is a processed board product formed by blending granular crumb rubber derived from discarded tires and various low density polymer components. Pre-molded under heat and pressure, REFLEX® is far more durable than current alternatives.

**J&K FOAM FABRICATING, INC. EXPANSION JOINT**

Non-Crosslink Polyethylene expansion joint filler can be used in all standard concrete construction, such as highways, runways, parking garages, driveways, sidewalks, and floor slabs. Non-Crosslink Polyethylene can also be used as a buffer between dissimilar materials such as columns, manhole covers, and adjacent constructions.

**FEATURES:**
- Extruded from a high quality, closed cell Non-Crosslink polyethylene foam
- Tear-Off Strip – Standard on each roll but can be special ordered without
- Flexibility – Will not break or crack when used around curves or columns
- Lightweight – Approximately 10 times lighter than traditional expansion joint products
- Accepted – Currently used by both residential and commercial contractors
- Durable – With near zero water absorption, non-crosslink polyethylene will not rot over time
- Economical – Easily cut and handled on any jobsite
PROFLEX VINYL EXPANSION JOINT

PROFLEX Vinyl Expansion Joint is manufactured from 100% recycled vinyl with fabric strand reinforcement that is obtained from the automotive and roofing industries. PROFLEX is an extremely durable and flexible product that is easy to handle and will not rot or become brittle when exposed to the weather. Because of its flexibility, it will not break, split or crack when exposed to the elements.

PROFLEX is UV stable, does not use adhesive binders in the manufacturing process, and can be stored outside.

PROFLEX Vinyl Expansion Joint is suitable for use with a wide variety of concrete construction projects. It is also ideal for many sizes of concrete slab work, as well as other flatwork applications. Because of its flexibility, PROFLEX can be used as a radius filler as well as a concrete form.

THICKNESS: ¼”
BACKER ROD

Standard

Basic Use:

ITP Standard Backer Rod is an ideal compressible and non-absorbent backup material that is inserted into a joint to control sealant depth. This creates a backstop to facilitate accurate sealant tooling and proper sealant wetting of the joint surfaces, yielding a quality bond breaker between the backup material and the sealant. ITP Standard Backer Rod can also be used as a temporary joint seal.

Specific Uses:

ITP Standard Backer Rod is suitable for glazing installations, window and door applications, expansion joints, curtain wall joints, partitions, log construction, pavement jobs, repairs, precast units and copings.

Compatibility:

ITP Standard Backer Rod is compatible with butyl, polysulfide, acrylic polyurethane, silicone and most other cold applied sealant compositions.
BACKER ROD

104 Soft Type

Basic Use:

TP Soft Type Backer Rod is a soft, pliable and non-gassing backup material that is inserted into a joint to control sealant depth. This creates a backstop to facilitate proper sealant tooling, yielding a quality bond breaker between the backup material and the sealant. ITP Soft Type Backer Rod can also be used as a temporary joint seal.

Specific Uses:

ITP Soft Type Backer Rod is suitable for specialty applications where standard backer rods are not appropriate. They are ideal for irregular joint applications, particularly where free flowing and self-leveling sealants are employed. ITP Soft Type Backer Rods can also be used in place of most standard backer rods, and are highly recommended for applications in which bubbling is a critical concern.
Industrial Thermo Polymers Limited

BACKER ROD

Hot Rod XL

Basic Use:

HOT ROD XL is an ideal compressible and non-absorbent backup material that is inserted into a joint to control sealant depth. This creates a backstop to facilitate accurate sealant tooling and proper sealant wetting of the joint surfaces, yielding a quality bond breaker between the backup material and the sealant. HOT ROD XL can also be used as a temporary joint seal.

Specific Uses:

HOT ROD XL is suitable for use in contraction and expansion joints of concrete highways, runways, driveways and parking lots.

Compatibility:

HOT ROD XL is compatible with most hot pour sealants, rubber-asphalt and coal tar-rubber polymer thermoplastic compounds up to a maximum temperature of 410°F.

PennDOT Approved
Embedded in concrete, across and/or along the joint, waterstops form a watertight diaphragm that prevents the passage of liquid through the joint.

**Suggested Waterstop Design Checklist**

- Verify chemical containment requirements, if any
- Verify hydrostatic head pressure requirements
- Determine joint type and joint movement requirements
- Specify material type for best water sealing performance
- Specify profile and size (by product number, if possible)
- Verify joinery details of dissimilar or asymmetric waterstop profiles, if any (consider using one profile throughout to simplify intersections)
- Specify factory fabrications and fittings for transitions and intersections
- Specify appropriate method for securing waterstop in position
  (see Greenstreak CSI-formatted product specifications for additional guidance)

**Selecting a Waterstop Shape**

MOVEMENT JOINTS are typically designed to accommodate significant movement due to drying shrinkage, temperature changes, settlement, creep, or live load deflections. The waterstop profile selected must have the ability to accommodate expected joint movement, typically achieved through the use of a centerbulb, tear web, or other suitable waterstop geometry designed to accommodate joint movement. Movement joints typically include contraction joints, expansion joints, and isolation joints. The following profiles are suitable for Movement joints:

- **Ribbed with Centerbulb** shapes are the most versatile type of waterstops available. The centerbulb accommodates lateral, transverse, and shear movement. Larger centerbulbs will accommodate greater movement.

- **Tear Web** shapes accommodate large movements. When joint movement occurs, the tear web ruptures and allows the U-bulb to deform without putting the material in tension.

- **Dumbbell with Centerbulb** shapes accommodate lateral, transverse, and shear movement. Larger centerbulbs will accommodate greater movement. Consider using Ribbed with Centerbulb for better sealing characteristics.

- **Base Seal with Tear Web** shapes accommodate lateral, transverse, and shear movement. Larger centerbulbs will accommodate greater movement. Base Seal waterstops have some limitations with transitions and intersections.
PVC WATERSTOP

Greenstreak PVC Waterstops are the benchmark for the industry and exceed standard specifications. The versatility of PVC has made these waterstops popular with specifiers and engineers. Outstanding physical properties, excellent inherent elasticity and resistance to many waterborne chemicals has made it the most widely specified waterstop material.

PVC waterstops are available in several styles and sizes. Choosing the correct waterstop begins with determining whether the joint is moving or non-moving.

**Typical Applications For PVC Waterstops Include:**
- Water and waste water treatment facilities
- Dams, lock, canals, water reservoirs and aqueducts
- Tunnels and culverts
- Foundations
- Primary and secondary containment structures

<table>
<thead>
<tr>
<th>Property</th>
<th>Test *ASTM</th>
<th>Nominal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water absorption</td>
<td>ASTM D570</td>
<td>0.15% max</td>
</tr>
<tr>
<td>Tear resistance</td>
<td>ASTM D624</td>
<td>300 lb./in. min.</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>ASTM D638</td>
<td>350% min.</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>ASTM D638</td>
<td>2000 psi min.</td>
</tr>
<tr>
<td>Low temperature brittleness</td>
<td>ASTM D746</td>
<td>Passes @ -35°F / -37°C</td>
</tr>
<tr>
<td>Stiffness in flexure</td>
<td>ASTM D747</td>
<td>700 psi min.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>ASTM D792</td>
<td>1.38 max.</td>
</tr>
<tr>
<td>Hardness Shore A15</td>
<td>ASTM D2240</td>
<td>79±3</td>
</tr>
<tr>
<td>Accelerated extraction</td>
<td>Corps of Engineers</td>
<td></td>
</tr>
<tr>
<td>• Tensile strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Elongation</td>
<td></td>
<td>1600 psi min.</td>
</tr>
<tr>
<td>• Stiffness in flexure</td>
<td></td>
<td>300% min.</td>
</tr>
<tr>
<td>Effect of Alkali</td>
<td>CRD-C 572</td>
<td></td>
</tr>
<tr>
<td>• weight change</td>
<td></td>
<td>+0.25% -0.10%</td>
</tr>
<tr>
<td>• hardness change</td>
<td></td>
<td>+/- 5 points</td>
</tr>
</tbody>
</table>

Greenstreak conducts regular tests of material physical properties. Refer to the suggested master specification for current values.
PVC WATERSTOPS

PVC Split Profiles

Eliminates split formwork in long straight runs. Do not use where design of the forms or locations of reinforcing prohibit opening of the split flange.
Quality splicing is extremely difficult at intersections and changes in direction.

Style Number: 723
Application: Special
Width: 6" (152 mm)
Thickness: 3/16" (4.7 mm)

Style Number: 724
Application: Special
Width: 6” (152.4 mm)
Thickness: 3/8” (9.5 mm)

PVC Ribbed with Centerbulb Profiles

The most versatile design available. The centerbulb accommodates transverse, lateral and shear movements. Larger centerbulbs will accommodate greater movements mechanically without significantly stressing the material. Ribbed styles have superior sealing capabilities over dumbbell style waterstops.

Style Number: 735
Application: Moving
Width: 9” (228.6 mm)
Thickness: 3/8” (9.5 mm)

Style Number: 703
Application: Moving
Width: 6” (152 mm)
Thickness: 3/16” (4.7 mm)

Style Number: 701
Application: Moving
Width: 4” (101.6 mm)
Thickness: 3/16” (4.7 mm)

Style Number: 705
Application: Moving
Width: 6” (152 mm)
Thickness: 3/8” (9.5 mm)

PennDOT Approved models:
698, 701, 703, 705, 709, 748
Models 723 and 724 are not currently approved

PVC Tear Web Profiles

Use where large movements are expected. The tear web keeps concrete from entering the bulb during concrete placement. When joint movement occurs, the web ruptures allowing substantial mechanical deformation of the bulb without stressing the material.

Style Number: 698
Application: Moving
Width: 6” (152 mm)
Thickness: 1/8” (3.2 mm)
HYDROTITE WATERSTOP

Hydrotite Waterstop Physical Properties

Hydrotite is a state-of-the-art hydrophilic waterstop with unmatched durability and watersealing capacity. Comprised of Non-Bentonite, modified chloroprene rubber, Hydrotite expands up to EIGHT TIMES its original volume when exposed to water. This expansion creates an effective compression seal within joints of limited movement. Recognized worldwide, Hydrotite has a proven track record as a high quality and cost effective solution to your water containment needs.

Leakmaster LV-1

Leakmaster LV-1 is a single component water-swelling sealant with excellent and unique properties. Leakmaster may be applied in locations where conventional solid sealants cannot be easily applied.

Typical structures utilizing hydrotite include:

- Water and waste water treatment facilities
- Primary and secondary containment structures
- Tunnels and culverts
- Dams, locks, canals, water reservoirs and aqueducts
- Pipe penetrations
- Swimming pools
- Storage tanks
- Retaining walls
- Foundations
- Slabs on grade
WESTEC TPE-R WATERSTOPS

Synthetic Rubber Highly Resistant to Oils, Solvents, and Aggressive Chemicals.

Not Readily Soluble in Common Solvents.

Certified to NSF/ANSI Standard 61 for Drinking Water System Components.

WESTEC’s Envirostop™ TPE-R (Thermoplastic Elastomeric Rubber) 600 Series Waterstops resist a wide range of oils, solvents and aggressive chemicals and are not readily soluble in any common solvent. Alcohols, ketones, glycols, esters and aqueous solutions of acids, bases and salts have little effect on WESTEC TPE-R Waterstop. TPE-R will swell in aromatic solvents, halogenated organic solvents and hot petroleum oils. Featuring excellent ozone resistance, low temperature flexibility and excellent high temperature (up to 257° F) performance. Our synthetic rubber is heat weldable for easier and higher quality field splicing.

Westec Envirostop TPE-R waterstop has been tested and certified by NSF to NSF/ANSI Standard 61. NSF/ANSI Standard 61 establishes minimum health effects requirements for the chemical contaminants and impurities that may be indirectly imparted to drinking water. Although more commonly known for its use in chemical containment applications, TPE-R waterstop is now widely used as an effective alternative to stainless steel waterstop for ozone contact structures in the water treatment industry. In addition to ozone contact structures, Westec TPE-R waterstop can be specified for any drinking water containment structure where NSF/ANSI Standard 61 certification is required for joint sealing materials.

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>2000 psi (13.8 MPa)</td>
</tr>
<tr>
<td>Ultimate Elongation</td>
<td>ASTM D-638</td>
<td>450%</td>
</tr>
<tr>
<td>100% Modulus</td>
<td>ASTM D-638</td>
<td>1000 psi (6.9 MPa)</td>
</tr>
<tr>
<td>Shore A Hardness</td>
<td>ASTM D-2240</td>
<td>85 Units +/- 5 units</td>
</tr>
<tr>
<td>Brittle Point</td>
<td>ASTM D-746</td>
<td>-70° F (-57° C)</td>
</tr>
<tr>
<td>Ozone Resistance*</td>
<td>ASTM D-1171</td>
<td>Passed 450 pphm</td>
</tr>
<tr>
<td>Peel Strength @ 23° C</td>
<td>ASTM D-816 mod.</td>
<td>22 pli</td>
</tr>
</tbody>
</table>

*Ozone Resistance testing is based on ppm of ozone gas and assumes zero ozone concentration in the environment.
WATERSTOP RX-101  RX-102

Expanding Concrete Joint Waterstop

Waterstop-RX is a sodium bentonite based waterstop designed to stop water infiltration through cast-in-place concrete construction joints by expanding upon contact with water to form a positive seal against the concrete. The key to Waterstop-RX’s effectiveness is its high sodium bentonite content which provides superior expansion to seal and fill voids and cracks in the concrete. Waterstop-RX is an active bentonite/butyl-rubber based waterstop that is designed to replace passive PVC/Rubber dumbbell waterstops, thereby eliminating the requirement of special pieces, split-forming and seam welding.

Waterstop-RX has been successfully tested by independent testing firms to over 200 feet (60 meters) of hydrostatic water pressure, under both continuous immersion and wet/dry cycling. Waterstop-RX 101 is produced in a rectangular shape measuring 1” x 3/4”.

The patented trapezoidal shape distributes the expansive force over a greater area and allows the concrete to flow more readily over the product during placement. Waterstop-RX 102 is produced in a half-circle (Crescent) shape measuring 3/4” x 3/8” (Though Waterstop-RX possesses good resistance to many chemicals, the waterstop is not intended to be used as the primary joint sealant for chemical containment vessels. Consult manufacturer for guidance regarding chemical compatibility for secondary chemical containment applications. Additionally, Waterstop-RX is not an expansion joint sealant. Expansion joints require an expansion joint product provided by others.

Waterstop-RX is a reliable, cost-effective means to stop water infiltration through concrete cold joints. It can also be used around pipe and structural penetrations.
Concrete structures are only as watertight as the waterstops that join them. SWELLSTOP™ waterstop helps contain the problem of below grade moisture penetration in NON-MOVING joints.

Fast and easy to install, even by a single, unskilled laborer. SWELLSTOP™ keeps construction costs down by eliminating the need for split-forming and fabricated splices.

SWELLSTOP is a flexible, coiled strip of butyl rubber and swellable clay waterproofing joint compound that swells upon contact with water to form a long lasting compression seal.

- SWELLSTOP can be applied by one person without split forming or splicing.
- SWELLSTOP remains flexible under most temperature conditions for all seasons applications.
- SWELLSTOP is non-toxic and requires no special handling.
- SWELLSTOP has excellent adhesion to SWELLSTOP Primer/Adhesive over clean dry concrete.

### SWELLSTOP™ Technical Data

#### Physical Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>SWELLSTOP RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity at 77°F</td>
<td>ASTM-D-71</td>
<td>1.26</td>
</tr>
<tr>
<td>Penetration</td>
<td>ASTM-D-217</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>150 GTL</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>300 GTL</td>
<td></td>
</tr>
<tr>
<td>Penetration After Aging 21 days at 130°F Unrestricted Swell</td>
<td>ASTM-D-217 300 GTL</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300%</td>
</tr>
<tr>
<td>Head Pressure Resistance</td>
<td>Greenstreak’s Hydrostatic Pressure Test* in actual field simulation of concrete joint.</td>
<td>139-162 ft. (60-70 psi) ultimate</td>
</tr>
<tr>
<td>Head Pressure Resistance</td>
<td>Competitor’s material penetration Hydrostatic Pressure Test-not in concrete joint.</td>
<td>231 ft. (100 psi)</td>
</tr>
<tr>
<td>Accelerated Aging</td>
<td>Mechanical Oven 4 hrs. @ 212°F</td>
<td>Maintained 99% solids</td>
</tr>
<tr>
<td>Flow Resistance</td>
<td>3/4” Overhead Joint Exposed to 135°F for 7 days.</td>
<td>No Flow</td>
</tr>
</tbody>
</table>

**NOTE:** SWELLSTOP is NOT an expansion joint material and SHOULD NOT be used as one. Expansion joints MUST be sealed with a conventional waterstop. For additional information on waterstop for expansion or moving joints, contact GREENSTREAK at 800-325-9504.
MEL-DEK
Deck Waterproofing System

MEL-DEK is a roll-type waterproofing membrane composed of a nominally 53 mil thick layer of polymeric waterproofing membrane on a shrink-resistant, heavy-duty, 12 mil thick polypropylene woven carrier fabric. The two components are laminated together under strictly controlled production procedures.

USES

MEL-DEK Waterproofing System provides an excellent waterproofing membrane for bridges, parking decks or other vehicular traffic structures to be overlaid with an asphalt concrete wearing course. MEL-DEK is ideal for repair, maintenance or new construction applications.

PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>65 mils</td>
</tr>
<tr>
<td>Tensil Strength, ASTM D 882</td>
<td>90 lbs./in.</td>
</tr>
<tr>
<td>Warp</td>
<td>90 lbs./in.</td>
</tr>
<tr>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>Elongation, ASTM D 882</td>
<td>410%</td>
</tr>
<tr>
<td>Polymeric Membrane</td>
<td></td>
</tr>
<tr>
<td>Fabric, Warp</td>
<td>35%</td>
</tr>
<tr>
<td>Fabric, Fill</td>
<td>45%</td>
</tr>
<tr>
<td>Puncture, ASTM E 154</td>
<td>275 lbs.</td>
</tr>
<tr>
<td>Flexibility, ASTM D 146</td>
<td>PASS</td>
</tr>
<tr>
<td>180° Bend, ¼” mandrel @ -26°F</td>
<td></td>
</tr>
<tr>
<td>Water Vapor Permeance, ASTM E-96, Water Method</td>
<td>0.03 Perms</td>
</tr>
<tr>
<td>Water Absorption, ASTM D 1970</td>
<td>0.06%</td>
</tr>
<tr>
<td>ASTM D 1228</td>
<td>0.06%</td>
</tr>
</tbody>
</table>

COVERAGE

180 sq. ft. net (16.72 sq. m) of effective waterproofing coverage. (192.5 gross coverage.)

FEATURES AND BENEFITS

- Requires no protection ... can withstand the dynamic placement of hot asphalt overlays.
- Provides 3/4” membrane-to-membrane weld at seams for positive, monolithic protection.
- Flexible, dependable, cost-effective and easy to install.
- Meets a wide range of maintenance and new construction application needs.

SPECIFICATIONS

ASTM D 6153, Type III

Priming:

Prime all surfaces to be covered with MEL-PRIME or MEL-PRIME W/B primer from W. R. MEADOWS. Primer may be spray-applied or applied with a lamb’s wool roller. Allow primer to dry until tack-free. Primed areas not covered in 24 hours must be re-primed.

Coverage:

250 to 300 sq. ft/gal.
MEL-ROL
Rolled, Self-Adhering Waterproofing Membrane

MEL-ROL waterproofing system is a flexible, versatile, dependable, roll-type waterproofing membrane. It is composed of a nominally 56 mil thick layer of polymeric waterproofing membrane on a heavy duty, four-mil thick, cross-laminated polyethylene carrier film. The two components are laminated together under strict quality controlled production procedures.

A handy overlap guideline is printed 2 ½” in from the material edge on each side to assure proper overlap coverage and to assist in maintaining a straight application. Special exposed polymeric membrane strips are provided on both sides for positive membrane-to-membrane adhesion in the overlap area. The membrane strips are protected by a pull-off release strip. All components of the MEL-ROL waterproofing system work together to provide a cost-effective, positive waterproofing system that is quick and easy to apply.

FEATURES / BENEFITS:
- Provides cost-effective, flexible, versatile, dependable, positive waterproofing protection against damaging moisture migration and the infiltration of free water.
- Offers a quick and easy-to-apply system for maximum productivity.
- Special membrane-to-membrane adhesion provides additional overlap security.
- Meets or exceeds the test requirements of all currently applicable specifications.
- Components work together for positive waterproofing protection.
- Handles with ease on the jobsite.
- Available in a low temperature version for use when air and surface temperatures are between 20° F and 60° F. An extra-low temp version is also available, ideal for application in extra-low temperatures down to 0° F.

PACKAGING:
38.5” wide x 62.5’ long, one roll per carton.
ALSO AVAILABLE IN 24” X 62.5’
PREMOULDED MEMBRANE® VAPOR SEAL WITH PLASMATIC® CORE

Vaporproofing/Waterproofing Membrane

PMPC provides a positive, easy-to-install, economical, true vaporproofing and waterproofing system for horizontal applications. Properly applied, it stops moisture migration in footings, concrete floors, and structural slabs. PREMOULDED MEMBRANE VAPOR SEAL WITH PLASMATIC CORE is both waterproof and vaporproof.

It offers a perm rating of less than 0.002 perms, the lowest in the industry. The product is the ultimate when a true vapor seal is required. Among its unique features is the built-in protection course, which resists jobsite puncturing and the abrasive action of concrete placement. PMPC conforms to ASTM E 1993-98.

The exclusive PLASMATIC CORE adds flexibility, greater tensile strength and excellent handling characteristics, in addition to providing unequalled vapor barrier properties. PMPC helps meet and maintain the maximum slab moisture transfer rate of 3 lb./1000 sq. ft./24 hours, as allowed by the flooring industry’s specifications.

FEATURES / BENEFITS:
- Offers a virtually impermeable vaporproofing system with a perm rating of less than 0.002 perms, the lowest in the industry.
- As the only true vapor barrier for horizontal applications, it is both waterproof and vaporproof.
- Provides excellent tensile strength and puncture resistance.
- Helps prevent warping, buckling, or delamination of subsequent flooring systems.
- Conforms to ASTM E 1993-98 specification.
- Greatly reduces fungus, mildew, and mold.
- Greatly reduces radon gas from entering the structure.
- Helps meet and maintain the maximum slab moisture transfer rate of 3 lb./1000 sq. ft./24 hours, as allowed by the flooring industry’s specifications

PACKAGING:

<table>
<thead>
<tr>
<th></th>
<th>Width</th>
<th>Length</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheets</td>
<td>48”</td>
<td>8’</td>
<td>60 lb. / 100 sq. ft.</td>
</tr>
</tbody>
</table>

Waterproofing
PROTECTION COURSE
Waterproofing Protection

PROTECTION COURSE is a multi-ply, semi-rigid core composed of a mineral-fortified asphalt core formed between two outside layers of asphalt impregnated reinforced mats, manufactured in accordance with ASTM D 6506. When properly applied by personnel trained in good waterproofing techniques, PROTECTION COURSE will absorb the impact of aggregate shock and normal jobsite foot traffic. It also protects the membrane waterproofing from penetration by sharp aggregate during backfilling and later settlement. PROTECTION COURSE is available in two types: PC-2, Standard Duty and PC-3, Heavy Duty. Both types are economical and convenient to use.

USE
PROTECTION COURSE is used in between slab construction, such as plaza decks, roof terraces, promenade decks, pedestrian concourses, tunnels, bathroom floors, showers, kitchens, mechanical rooms, parking garage decks, planter boxes, reflective pools, and foundation walls. PROTECTION COURSE is compatible with most currently popular dampproofing and waterproofing.

PACKAGING
4’ x 8’ Panels

TECHNICAL DATA
ASTM D 6506, Class B

PROTECTION BOARD REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>PC-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puncture Strength</td>
<td>312 N (70 lbf) minimum</td>
</tr>
<tr>
<td>Thickness</td>
<td>2.4 - 3.9 mm (0.095” - 0.155”)</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>10.0% maximum</td>
</tr>
<tr>
<td>Asphalt, % by weight</td>
<td>40% minimum</td>
</tr>
<tr>
<td>Resistance to Decay</td>
<td>Meets puncture requirements after completion of test</td>
</tr>
<tr>
<td>(Classes A &amp; B)</td>
<td></td>
</tr>
</tbody>
</table>

Waterproofing
TREMproof® 250GC
Single Component, Rapid Curing, Fluid-Applied Elastomeric Waterproofing Membrane

TREMproof® 250GC is a rapid-curing, high solids, VOC compliant modified polyurethane waterproofing membrane. It can be applied to damp and Green concrete. TREMproof 250GC is a one-part moisture curing elastomer available in three viscosities: Self-Leveling, Roller and Trowel (trowel intended for detailing work).

BASIC USES:
TREMproof 250GC is designed for use on backfilled walls, split slab applications, planters and submerged conditions.

FEATURES AND BENEFITS:
TREMproof 250GC can be applied in as little as 24 hours following the removal of concrete forms to keep construction moving. It can also be applied to damp concrete, reducing the delays associated with rain or other sources of water. The unique ability to catalyze TREMproof 250GC with water when desired will speed cure times, especially cold temperatures and low relative humidity, to further compress the construction schedule. TREMproof 250GC can be applied at a rate of up to 120 mils in a single lift to speed application without sacrificing performance. It can also be applied in multiple lifts to achieve a 215 mil high-build system when maximum protection is required.

PACKAGING:
5 gal. pails, 36 pails/pallet
55 gal. drums, 4 drums/pallet

COVERAGE RATES:

<table>
<thead>
<tr>
<th>Wet Mil Thickness</th>
<th>Square Ft / Gal</th>
<th>Sq. M/Litre</th>
</tr>
</thead>
<tbody>
<tr>
<td>215</td>
<td>7.5</td>
<td>.19</td>
</tr>
<tr>
<td>120</td>
<td>13</td>
<td>.32</td>
</tr>
<tr>
<td>90</td>
<td>18</td>
<td>.44</td>
</tr>
<tr>
<td>60</td>
<td>25</td>
<td>.66</td>
</tr>
</tbody>
</table>
MASTERSEAL HLM 5000
Liquid, cold-applied elastomeric waterproofing membrane system

Formerly SONOSHIELD HLM 5000
A one-component, moisture-curing, bitumen-modified polyurethane elastomeric waterproofing membrane for exterior below-grade or between-slab applications.

PRODUCT HIGHLIGHTS:
• Available in standard and high-build systems
• Waterproofing membrane to prevent water penetration
• Elastomeric accommodates expansion and contraction
• Wide service-temperature range, making MasterSeal HLM 5000 suitable for all climates
• Chemical resistance to bacterial attack, select acids, alkalis and salts
• Seamless cold-applied membrane eliminates lapping, seaming and precutting
• Does not require hot-melt equipment

APPLICATIONS:
• Concrete
• Plywood (exterior)
• Exterior below grade (on masonry, concrete, and incidental metal)
• Above grade (between two-course concrete and, within cavity walls)
• Parking garages and concrete tanks
• Plaza decks and malls
• Walls and culverts
• Sea walls, dams and reservoirs
• Below-grade slabs
• Fountains and pools
• Balconies and planters

YIELD:
25–30 ft²/gal at 55–65 wet mils
25–30 ft²/gal at 45–55 dry mils
MASTERSEAL® 615
Waterborne emulsified-asphalt dampproofing compounds

Formerly HYDROCIDE 700B
MasterSeal 615 are cold-applied water-based emulsified-asphalt dampproofing and vapor-retarding coatings for use on “green” or slightly damp surfaces.

MasterSeal 615 is reinforced with short fibers for application by brush or spray.

PRODUCT HIGHLIGHTS:
• Suitable for “green” or slightly damp surfaces, speeding up dampproofing of new foundation walls
• Non-flammable to minimize fire hazard during application
• User-friendly water clean-up formula; reduces clean-up time
• Flexible
• Wide service temperature range of -40 to 150° F making MasterSeal 610, 614, and 615 suitable for most Climates

APPLICATIONS:
• Exterior surfaces (below grade)
• Foundations
• Faces of cavity walls

PACKAGING:
53 gallon drums,
5 gallon cans

YIELD:
Varies

Concrete
CMU
Exterior-grade gypsum board
Bonding polystyrene insulation to many substrates
STEGO® WRAP VAPOR BARRIER
ASTM E 1745 Class
A-B-C Compliant

STEGO® WRAP VAPOR BARRIER is made with our proven trade secret blend of prime virgin resins and additives. Stego Wrap Vapor Barrier is an ASTM E 1745 Class A Vapor Barrier (Below 0.01 perms). We focus on producing a product that will maintain its extremely low permeance for the life of a building. The protection of Stego Wrap Vapor Barrier provides the flexibility to change flooring types and overall building use without worrying about below-slab moisture vapor.

SUPERIOR DEFENSE Against Floor Failures:
Infiltration of moisture through concrete slabs is a major building defect liability. Stego Wrap Vapor Barrier has an extremely low permeance preventing water vapor, soil gases (i.e. Radon), alkaline salts and soil sulfates from compromising the integrity of the building envelope and leading to serious problems with the concrete slab, floor coverings and indoor air quality. Stego Wrap Vapor Barrier is the best protection against these costly failures.

MOLD PREVENTION:
Mold needs three things to survive: moisture, sustained temperature (between 50° and 122° F), and a food source (dust, drywall, etc.). In any given building environment, contractors can only control one of these variables: moisture. Mold spores are present in 100% of building interiors. If moisture is allowed into your building environment, mold can and will grow. Toxic molds like Stachybotrys can be fatal for nearly 5% of people (Institute of Medicine 1993), and cause a variety of serious health problems in others. Several recent well-publicized cases involving toxic mold have resulted in multimillion-dollar insurance settlements. Many of the nation’s leading Insurance companies have severely limited or removed coverage for mold claims fearing that these claims will bankrupt their companies. Now more than ever, it is critically important that extra attention be paid to preventing the intrusion of moisture vapor from your below-slab environment. Stego Wrap Vapor Barrier offers the level of protection that many architects are now seeking and is considered to be inexpensive insurance against these costly failures.

LONGEVITY AND STRENGTH:
Stego Wrap Vapor Barrier is NOT made with recycled materials and will not degrade. Prime, virgin resins are the key. Molecules within Stego Wrap “interlock” to provide strength, durability and unprecedented resistance to moisture vapor and radon gas. Stego Wrap’s puncture resistance is excellent. Stego Wrap will not tear, crack, flake, snag or puncture, even when 18,000 lb. laser-screed machines are driving directly across the barrier.

SIZE:
15 mil  14’ x 140’
10 mil  210 x 140’

STEGO INDUSTRIES, LLC
PB4 Waterproofing Protection Board

Protects the waterproofing membrane from damage when backfilling.

*Lightweight, easy-to-install fanfold.*
*Superior moisture resistance.*

Once you’ve applied the waterproofing membrane to exterior foundation walls, protect it from damage during backfilling with PB4 Waterproofing Protection Board. PB4 has tough plastic capsheets that resist puncturing, plus high compressive strength and impact resistance to withstand even the toughest load pressures. Because it is made of extruded polystyrene (XPS), PB4 has a dense, closed-cell construction that resists both moisture absorption and decomposition from long-term exposure to chemicals in the soil. Comes in lightweight, fanfolded bundles that are easy to transport and install.

### TYPICAL PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
<th>PB4</th>
</tr>
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<tbody>
<tr>
<td>Thermal Resistance, R-Value¹</td>
<td>ASTM C 518 (@ 75°F Mean Temperature)</td>
<td>1.0</td>
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<tr>
<td>Thermal Conductivity (Btu-in/hr-ft² - °F)</td>
<td>ASTM C 518 (@ 75°F Mean Temp., k)</td>
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<td>Water Vapor Permeance (perm)</td>
<td>ASTM E 96 Desiccant Method</td>
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<td>Water Absorption (Max. % by Volume)</td>
<td>ASTM C 272</td>
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<tr>
<td>Compressive Strength (psi@ 10% Deflection)</td>
<td>ASTM D 1621</td>
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</tr>
<tr>
<td>Fire Characteristics²</td>
<td>ASTM E 84/UL 723</td>
<td>Class A&lt;br&gt;25&lt;br&gt;250</td>
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<tr>
<td>Water Absorption Temp. (°F)</td>
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<tr>
<td>Weight (lbs./1,000 sq. ft.)</td>
<td></td>
<td>80</td>
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</table>

**SIZE:** 4’ X 50’

PennDOT approved
FOAMULAR® 250
Extruded Polystyrene (XPS) Rigid Foam Insulation

Energy-Saving¹, Moisture Resistant XPS Insulation

Owens Corning™ FOAMULAR® 250 Extruded Polystyrene (XPS) Rigid Foam Insulation is a closed cell, moisture-resistant rigid foam board well suited to meet the needs for a wide variety of building applications.

FOAMULAR® 250 Extruded Polystyrene (XPS) Rigid Foam Insulation is great for many residential and commercial construction applications such as wall furring, perimeter/foundation, cavity wall, precast concrete, under slab, crawl spaces, sheathing and other applications.² FOAMULAR® 250 Extruded Polystyrene (XPS) Rigid Foam Insulation is classified as a Type IV product when tested in accordance with ASTM C578 and provides a long-term thermal performance of R-5 per inch.

Like all FOAMULAR® XPS Insulation products, FOAMULAR® 250 Extruded Polystyrene (XPS) Rigid Foam Insulation is made with Owens Corning’s patented Hydrovac® process technology under strict quality control measures, which makes it highly resistant to moisture and permits the product to retain its high R-value year after year even after exposure to moisture and freeze/thaw cycling.

KEY FEATURES:
- Excellent long-term stable insulating performance at R-5 per inch³
- Exceptional moisture resistance, long-term durability
- Limited lifetime warranty—maintains 90% of R-value and covers all ASTM C578 properties
- The only XPS foam to have achieved GREENGUARD Gold Certification
- The only XPS foam with certified recycled content—certified by Scientific Certification Systems (SCS) to contain a minimum 20% recycled content
- Will not corrode, rot or support mold growth
- Zero ozone depletion potential with 70% less global warming potential than our previous formula
- Reusable
- Lightweight, durable rigid foam panels are easy to handle and install
- Easy to saw, cut or score
- Versatile applications: sheathing, foundation walls, masonry cavity walls¹
- Not for use in roofing. For roofing applications, use FOAMULAR® THERMAPINK® Extruded Polystyrene (XPS) Insulation.

¹ Energy-Saving
² Tested in accordance with ASTM C578
³ R-5 per inch performance
⁴ Limited lifetime warranty maintains 90% of R-value and covers all ASTM C578 properties

PennDOT approved
HYDRAULIC WATER-STOP CEMENT

QUIKRETE® Hydraulic Water-Stop Cement is a rapid setting, high strength repair material designed to plug leaks instantly in concrete and masonry.

PRODUCT USE:
QUIKRETE® Hydraulic Water-Stop Cement will block running water when application is made to masonry or concrete surfaces. This special formulation allows the product to obtain high strength and rapid setting while repelling water. QUIKRETE® Hydraulic Water-Stop Cement solves leakage problems wherever active water is present, in all masonry and concrete above and below grade. Use QUIKRETE® Hydraulic Water-Stop Cement for sealing around concrete pipes and for plugging leaks in:

- Foundation and retaining walls
- Chimneys
- Swimming pools, fountains and cisterns

YIELD:
Each 50 lb pail of QUIKRETE® Hydraulic Water-Stop cement will yield 0.42 cu ft.

<table>
<thead>
<tr>
<th>Curing Time</th>
<th>Compressive Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hours</td>
<td>1000 psi (6.9 MPa)</td>
</tr>
<tr>
<td>24 hours</td>
<td>2500 psi (17.3 MPa)</td>
</tr>
<tr>
<td>7 days</td>
<td>4500 psi (31.1 MPa)</td>
</tr>
<tr>
<td>28 days</td>
<td>5500 psi (38.0 MPa)</td>
</tr>
<tr>
<td></td>
<td>Final set time less than 5 minutes</td>
</tr>
</tbody>
</table>
BOX GABIONS

Box gabions consist of rectangular units, fabricated from double-twist, hexagonal mesh of soft annealed, heavily zinc coated wire filled with stone, gabions become large, flexible and permeable elements from which a broad range of structures can be built (retaining walls, river bank protections, weirs, etc.). Gabions are divided into cells with diaphragms, whose function is to reinforce the structure. The mesh (except for the diaphragms) is reinforced on all edges with wires of a larger diameter to strengthen the gabions and facilitate the assembly and installation. Gabions can also be manufactured with wire mesh coated with a continuous PVC (polyvinyl chloride) sleeve. This provides protection against corrosion making them suitable for use in marine or polluted environments. Gabions are also available in Galmac wire.

<table>
<thead>
<tr>
<th>Length (ft.)</th>
<th>Width (ft.)</th>
<th>Height (ft.)</th>
<th>Number of Cells</th>
<th>Capacity (cy)</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>6’</td>
<td>3’</td>
<td>3’</td>
<td>2.00</td>
<td>2.00</td>
<td>Blue</td>
</tr>
<tr>
<td>9’</td>
<td>3’</td>
<td>3’</td>
<td>3.00</td>
<td>3.00</td>
<td>White</td>
</tr>
<tr>
<td>12’</td>
<td>3’</td>
<td>3’</td>
<td>4.00</td>
<td>4.00</td>
<td>Black</td>
</tr>
<tr>
<td>6’</td>
<td>3’</td>
<td>1.5’</td>
<td>2.00</td>
<td>1.00</td>
<td>Red</td>
</tr>
<tr>
<td>9’</td>
<td>3’</td>
<td>1.5’</td>
<td>3.00</td>
<td>1.50</td>
<td>Green</td>
</tr>
<tr>
<td>12’</td>
<td>3’</td>
<td>1.5’</td>
<td>4.00</td>
<td>2.00</td>
<td>Yellow</td>
</tr>
<tr>
<td>6’</td>
<td>3’</td>
<td>1’</td>
<td>2.00</td>
<td>0.66</td>
<td>Blue-Red</td>
</tr>
<tr>
<td>9’</td>
<td>3’</td>
<td>1’</td>
<td>3.00</td>
<td>1.00</td>
<td>Blue-Yellow</td>
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<tr>
<td>12’</td>
<td>3’</td>
<td>1’</td>
<td>4.00</td>
<td>1.33</td>
<td>Blue-Green</td>
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<tr>
<td>4.5’</td>
<td>3’</td>
<td>3’</td>
<td>1.00</td>
<td>1.50</td>
<td>Brown</td>
</tr>
</tbody>
</table>

PennDOT Approved
PENNSYLVANIA DOT & COMMERCIAL SILT FENCE

PRODUCT FEATURES

• Preassembled with hardwood stakes attached for fast installation.

• Packaged in bundles for easy transport and storage.

• Polypropylene fabric is specially designed to allow water to filter through while retaining silt and other sediment on construction sites.

• Protects streams, lakes and other waterways from silt build up.

• Keeps adjoining roadways free of mud and debris.

• Available in 18” x 100’, 30” x 100’.

PRODUCT INSTALLATION

• Dig a 6” wide by 6” deep trench where silt fence is to be installed.

• Drive posts into the ground on the downside trench edge until the bottom of the 6” unattached flap touches the bottom of the trench. Posts are to be on the downside of the fabric opposite the flow.

• Backfill the trench and tamp.

• With correct installation, silt and sediment will not flow under the silt fence.
COMPOST FILTER TUBE

DESCRIPTION
Compost filter tubes are constructed by filling a tubular knitted mesh with organic composted filter media. Used primarily for temporary erosion/sediment control applications, where perimeter controls are required or necessary. The three-dimensional filter natural permeability allows water to seep through it while capturing sediment in its pore space and by creating a temporary ponding area behind its mass, slowing water velocity, and absorbing water pollutants such as phosphorus, metals, hydrocarbons, nutrients, and bacteria.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Posts*</th>
<th>Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtertube 9 x 125</td>
<td>9” x 125 ft.</td>
<td>14</td>
<td>840</td>
</tr>
<tr>
<td>Filtertube 12 x 100</td>
<td>12” x 100 ft.</td>
<td>11</td>
<td>1050</td>
</tr>
<tr>
<td>Filtertube 18 x 50</td>
<td>18” x 50 ft.</td>
<td>8</td>
<td>902</td>
</tr>
<tr>
<td>Filtertube 24 x 32</td>
<td>24” x 32 ft.</td>
<td>5</td>
<td>1,425</td>
</tr>
</tbody>
</table>

*Number of posts needed per pallet

FEATURES & BENEFITS
- Meets DEP and PennDOT
- High Performance, Low Maintenance, Cost Effective
- Easy to Install, No trenching, install year-round.
- Environmentally Friendly Green Technology.
- Made from locally available recycled material.
- Easy removal, minimal disposal costs.

PennDOT Approved
SILTSACK

SiltSack is a sediment control device used to prevent silt and sediment from entering your drainage system by catching the silt and sediment while allowing water to pass through freely. SiltSack can be used as a primary or secondary sediment control device to prevent failure of your drainage system due to clogging. It must be maintained on a regular basis to function properly.

SiltSack is available in both high-flow or regular flow. A modified SiltSack is also available with a curb opening deflector attached to prevent sediment and debris from entering through curb openings. SiltSack is a quality product designed to save time and money.

Routine inspection of a SiltSack’s collected sediment level is important to prevent “ponding” around storm drains. We recommend the following maintenance schedule:

- Each SiltSack should be inspected after every major rain event.
- If there have been no major events, SiltSack should be inspected every 2-3 weeks.
- The yellow restraint cord should be visible at all times. If the cord is covered with sediment, the SiltSack should be emptied.

**And It’s Simple**

- Remove drain grate
- Insert SiltSack
- Replace grate to hold SiltSack in position
- SiltSack traps silt
- Remove filled SiltSack easily
- Clean and reuse or simply
- Discard and replace Catch Basin

PennDOT Approved
SEDIMENT FILTER BAGS

Sediment Filter Bags, also known as Dirt Bags or Filter Pump Bags, are designed to control and filter silt and sediment-laden water during dewatering activities. Filter Bags are constructed of non-woven geotextile material that filters, oil particles greater than 150 microns, while allowing discharge water to pass through the bag. Each bag has an adjustable spout to accommodate a discharge hose of up to six inches (6”).

EROSION CONTROL BLANKET

Excel SR-1

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel SR-1 temporary Erosion Control Blanket is composed of a 100% certified weed free agricultural straw matrix mechanically (stitch) bonded on two inch centers to a single synthetic, photodegradable net. The net is secured to the top of the RECP to restrain the straw matrix once installed. Excel SR-1 blanket is intended for use in channels or on slopes requiring erosion protection for a period up to twelve months. Actual field longevity is dependent on soil and climatic conditions.

Each roll of EXCEL SR-1 is manufactured under Western Excelsior’s Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

Excel SS-2

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). Excel SS-2 temporary Erosion Control Blanket is composed of a 100% certified weed free agricultural straw matrix mechanically (stitch) bound on two inch centers between two photodegradable, synthetic nets. Excel SS-2 is intended for use in channels or on slopes requiring erosion protection for a period up to twelve months.

PennDOT Approved
Woven Slit Film

Functions

Reinforcement / Stabilization: Slit film improves the mechanical properties of soil and structural fill by absorbing tensile forces and reducing deformation.

Separation: It also performs separation beneath roads, keeping dissimilar materials separated to maintain their functionality.

Product Description

Thrace-LINQ woven slit film geotextiles are well-suited for the separation and stabilization of roads. Their durable, high-modulus polypropylene yarns are woven into a competent structure that meets or exceeds industry standards. Since our slit film is both economical and hardwearing, it is also used to reinforce other civil structures like slopes, walls and dikes, and can serve as an erosion-preventing silt fence.

AASHTO M 288 is the national guideline specification for the use of geotextiles in civil engineering applications. Thrace-LINQ woven slit film meets the guidelines.

Features & Benefits

- Durable polypropylene yarns woven for dimensional stability
- High modulus, for immediate structural support
- Low elongation, to restrain construction damage like tearing or puncturing
- Fabric strength, suitable for encapsulation and fabrication in temporary or permanent structures
- Low cost, reducing total project expenses

Filtration Erosion Control Reinforcement Protection
Separation Drainage

Geotextile, Drainage
Civil Nonwovens

Functions

**Filtration:** Civil nonwoven geotextiles filter soil particles while allowing excellent water permittivity for structures requiring drainage.

**Erosion Control:** They can provide erosion control structures with stabilization and filtration.

**Reinforcement / Stabilization:** They can improve the mechanical properties of soil and structural fill by absorbing tensile forces and reducing deformation.

**Separation:** They also perform separation beneath roads, keeping dissimilar materials separated to maintain their functionality.

**Drainage:** Their high in-place and normal flow rates prevent excess water buildup and pore pressure, keeping civil structures strong & stable.

Product Description

Thrace-LINQ civil nonwoven geotextiles are designed for high permittivity (water flow) and a fine pore structure. Their strength prevents damage due to construction stresses, while their pores allow the free flow of groundwater and in-place gas and liquid transmission. Given their fine pore structure, civil nonwovens prevent fine soils from piping through or clogging the geotextile - eliminating the need for an expensive graded granular filter.

AASHTO M 288 is the national guideline specification for the use of geotextiles in civil engineering applications. Thrace-LINQ civil nonwovens meet the guidelines.

Features & Benefits

- Durable polypropylene yarns woven for dimensional stability
- High modulus, for immediate structural support
- Low elongation, to restrain construction damage like tearing or puncturing
- Fabric strength, suitable for encapsulation and fabrication in temporary or permanent structures
- Low cost, reducing total project expenses
AWD Prefabricated Drains
Cost Effective Alternatives for Pipe and Stone

The AWD Advantage

Increased Flow Rates
Reduces Hydrostatic Pressure
Green Friendly
80% Open Area vs. 3-5% with Perforated Pipe

<table>
<thead>
<tr>
<th>Typical Property Values</th>
<th>ASTM Test Method</th>
<th>Unit of Measure</th>
<th>C-180</th>
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<tbody>
<tr>
<td><strong>FABRIC</strong></td>
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<tr>
<td>Material</td>
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<td>PP</td>
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</tr>
<tr>
<td>Water Flow Rate</td>
<td>D-4491</td>
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<td></td>
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<td>Lpm/m²</td>
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<td>Grab Tensile Strength</td>
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<td>GBR Puncture Resistance</td>
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<td>UV Resistance</td>
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<td>AASHTO M 288-06</td>
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<td>Survivability</td>
<td>-</td>
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</tbody>
</table>

| **CORE**                |                  |                |       |
| Material¹               |                  | HIPS           |       |
| Thickness               | D 1777           | in             | .44   |
|                        |                  | mm             | 11    |
| Compressive Strength    | D 6364           | psf            | 18,000|
|                        | D 1621           | kPA            | 862   |
| Flow rate               | D 4716           | gpm/ft²        | 21    |
|                        |                  | Lpm/m          | 261   |

1 PP - Polypropylene; HIPS - High Impact Polystyrene

SITEDRAIN Sheet 180 Series prefabricated drains are constructed using a high strength, high flow capacity, formed polystyrene drainage core with a nonwoven, spun-bonded or woven filter fabric. The filter fabric is bonded to each dimple to prevent soil intrusion into the flow channels while allowing water to freely enter the drain core from one side.

SITEDRAIN Sheet 180 products are designed for subsurface, single-sided drainage applications requiring a high compressive strength and flow capacity.

SITEDRAIN Sheet 180 is available with filter fabrics meeting AASHTO M 288-06 specifications.

PennDOT Approved

www.americanwick.com
SITEDRAIN Sheet 180 Series

SITEDRAIN Sheet 180 Series prefabricated drains are constructed using a high strength, high flow capacity, formed polystyrene drainage core with a nonwoven, spun-bonded or woven filter fabric. The filter fabric is bonded to each dimple to prevent soil intrusion into the flow channels while allowing water to freely enter the drain core from one side.

SITEDRAIN Sheet 180 products are designed for subsurface, single-sided drainage applications requiring a high compressive strength and flow capacity. SITEDRAIN Sheet 180 is available with filter fabrics meeting AASHTO M 288-06 specifications.

<table>
<thead>
<tr>
<th>Typical Property Values</th>
<th>ASTM Test Method</th>
<th>Unit of Measure</th>
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<td>Grab Tensile Strength</td>
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<tr>
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<td>%</td>
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<td>UV Resistance</td>
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<td>% / 500 Hrs</td>
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<tr>
<td>AASHTO M 288-06</td>
<td>Survivability</td>
<td>%</td>
<td>-</td>
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</tbody>
</table>

| **CORE**                |                  |                 |      |
| Material¹               |                  |                 | HIPS |
| Thickness               | D 1777           | in, mm          | 1.0  |
|                        |                  |                 | 25.4 |
| Compressive Strength   | D 6364, D 1621   | psf, kPA        | 6,000|
|                        |                  |                 | 287  |
| Flow Rate               | D 4716           | gpm/ft, Lpm/m   | 21   |
|                        |                  |                 | 261  |

1  PP - Polypropylene; HIPS - High Impact Polystyrene

STRIP 6000 SERIES

SITEDRAIN Strip 6000 Series prefabricated soil drains are constructed by fully wrapping a perforated, high flow capacity polystyrene core with a nonwoven filter fabric. The filter fabric is bonded to the core and prevents soil intrusion into the flow channels while allowing water to freely enter the drain core from all sides.

SITEDRAIN Strip 6000 is a cost-effective, sustainable, performance driven alternative to perforated pipe & stone systems. SITEDRAIN Strip 6000 is available with filter fabrics meeting AASHTO M 288-06 specifications.
Hi-Q

Diameter: 4" - 30" (100 - 750 mm)
Length: 20’ (6.1m)
Specifications: AASHTO M252 Type S
AASHTO M249 Type S
Joint Performance: silt-tight; soil-tight
Joining System: External Split or Snap Coupler
Gasket: Synthetic rubber, meeting ASTM D1056 Grade 2A2
Fittings and Accessories: Hancor manufactures a full complement of fittings for all diameters of Hancor pipe.

• Adaptable to silt-or soil-tight joint performance requirements - silt-tight (gasketed) or soil-tight (non-gasketed) split coupler and external snap couplers are available.

• Available in 20’ or longer lengths, resulting in fewer joints - pipe can easily be cut ot the desired length in the field.

• Easy-to handle, safe, lightweight pipe requires less labor and equipment for faster installation and reducted costs.

• H-25 (Highway traffic loads) rated with a minimum of 12” (0.3m) of cover for 4” - 30” (100 - 750mm) diameters.

• Provides superior resistance to chemicals, road salts, motor oil and gasoline - will not rust, deteriorate or crumble.

• Withstands repeated freeze/thaw cycles and continuous sub-zero temp.

• Superior hydraulics-smooth interior will ensure no debris or sediment build-up.

PennDOT Approved
ULTRITE® DEGREASER
Heavy-Duty Concrete Degreaser and Stripper

ULTRITE DEGREASER is a heavy-duty concrete degreaser and stripper, which will biodegrade. It naturally and safely replaces mineral spirits and chlorinated solvent-based heavy-duty concrete degreaser products.

USES:

ULTRITE DEGREASER penetrates concrete surfaces on contact to soften, lift, and remove a wide range of oils, polymers, fats, and greases. Use ULTRITE DEGREASER to remove dirt, tire marks, oil spills, grease, and other contaminants. It will also remove most curing compounds and cure/seals from concrete floors. Periodic stripping of concrete floors is in keeping with good concrete maintenance practices. It is ideal for use in warehouses, industrial plants, food processing plants, schools, automotive plants, parking garages, plazas, and service stations – anywhere cleaning and stripping of concrete surfaces is required.

FEATURES/BENEFITS:

- Both a stripper and a degreaser in one.
- Ready and easy to use full-strength directly from the container.
- Biodegradable.

PACKAGING:

- 5 Gallon (18.93 L) Pails
- 1 Gallon (3.8 L) Units

COVERAGE:

- Stripping/Degreasing/Heavy-Duty Cleaning:
  100-200 ft.²/gal. (2.5-4.9 m²/L).
2010 ALL SURFACE CLEANER

Multiple-use Cleaner and Degreaser

Enviro Klean® 2010 All Surface Cleaner is a “next-generation” product for cleaning and degreasing light-to-heavily soiled stone, tile, masonry and much more.

Powerful enough for industrial use, flexible enough for jobs around the home, space-saving EK 2010 replaces a host of individual cleaning agents. It’s dilutable for home-use on windows, bathroom tub and tile, countertops and more. It’s concentrated for the toughest industrial cleaning jobs on concrete, metal and many other plant and warehouse surfaces. Easy-to-use EK 2010 All Surface Cleaner is water-rinsable and contains no harsh acids, caustics or solvents.

It’s concentrated for the toughest industrial cleaning jobs on concrete, metal and many other plant and warehouse surfaces.

ADVANTAGES:

- Cleans and degreases light-to-heavily soiled stone, tile, masonry and much more.
- Effectively removes moderate biological staining.
- Dilutable for jobs around the home.

LIMITATIONS:

Repeated use may dull polished carbonate surfaces, including but not limited to limestone, marble and tavertine.
SURE KLEAN 600
New Masonry Cleaner

Sure Klean® 600 is a general purpose, concentrated acidic cleaner for brick, tile and concrete surfaces. Dissolves mortar smears and construction dirt quickly, leaving the masonry clean and uniform with no acid burning or streaking.

ADVANTAGES:

- The No. 1-selling proprietary cleaner for new masonry
- Proven effective through years of use.
- Recommended by many brick, tile and mortar manufacturers.
- Safer than muriatic acid for new masonry surfaces.
- Removes efflorescence on bricks, new concrete and new stone construction.
- Fast and easy to apply – use with cold water rinse.
- Special wetting agents let larger masonry surfaces be cleaned at one time, eliminating streaking.

LIMITATIONS:

- May not be suitable for cleaning buff-colored brick and brick, stone or tile with manganese or other metallic additives. See product literature on Sure Klean® Vana Trol®.
- Not suitable for cleaning polished or certain glazed surfaces. Always test to ensure suitability.
- Repeated applications may leave a detergent residue. Always prewet to reduce potential for detergent residue. Rinse thoroughly. Don't apply more than twice.
- Not effective for removing atmospheric dirt and black carbon stains. Use the appropriate Sure Klean® restoration cleaner to remove atmospheric staining from older masonry surfaces.
- Not for use on treated low-E glass; acrylic and polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings and films.
VANA TROL
Sensitive Brick & Stone Cleaner

Sure Klean® Vana Trol® is a concentrated acidic cleaner for new masonry surfaces that are subject to vanadium, manganese and other metallic stains. Vana Trol® is designed to simplify rinsing and reduces potential for efflorescence.

ADVANTAGES:

- Clings to masonry surface, and softens excess mortar and job dirt.
- Slow-drying so it rinses clean without streaking.
- Controls green vanadium and brown manganese staining on color-sensitive brick and tile.
- Removes efflorescence on new brick, concrete block, and stone construction.
- Safe for use on most unpolished natural stone or cast stone.
- Designed for use with colored mortar.

LIMITATIONS:

- Repeated applications may leave a detergent residue. To reduce potential for detergent residue: always prewet; rinse thoroughly; do not exceed two applications.
- Not effective for removing atmospheric dirt and black carbon stains. Use the appropriate Sure Klean® restoration cleaner to remove atmospheric staining from older masonry.
- Not for use on treated low-E glass; acrylic and polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings and films.
Sure Klean® Light Duty Concrete Cleaner removes common construction and atmospheric staining from smooth architectural and engineered concrete. This general-purpose, non etching acidic cleaner removes rust, mud, atmospheric dirt, mortar smears and other stains without altering the surface texture. Light Duty Concrete Cleaner adds depth to colors, brightens white matrices and exposed aggregate.

ADVANTAGES:

- Improves color uniformity and enhances appearance.
- Contains no muriatic acid.
- Removes common construction stains and atmospheric dirt.
- Removes efflorescence stains on brick and decorative pavers, as well as secondary efflorescence on concrete block.
- Removes localized rust and other metallic staining on unpolished limestone, travertine and marble.
  Always test.
- Safe for most pigmented concrete and colored mortar.
- Water rinsable.

LIMITATIONS:

- Acidic contents may damage polished masonry, some non masonry and acid-sensitive surfaces.
- Not for use on treated low-E glass; acrylic and polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings and films.
HEAVY DUTY RESTORATION CLEANER NE
Ultra-Powerful Carbon & Pollution Remover

Sure Klean® Heavy Duty Restoration Cleaner NE is a concentrated acidic cleaner specifically made to attack and wipe out the heaviest atmospheric staining the Northeast U.S. urban and industrial environment can produce on brick, terra cotta, granite, sandstone and more.

Used carefully, this ultra-powerful formulation breaks loose and dissolves the decades of dirt, paint oxidation, carbon buildup and other atmospheric pollutants that can prove too difficult for other cleaners. A simple cold-water rinse removes these unsightly, stubborn stains, revealing the masonry’s original beauty.

ADVANTAGES:

- Specially formulated to clean the worst carbon staining and grime the Northeast urban environment can produce.
- Proven effective on the dirtiest masonry.
- Safer than sandblasting. Will not damage masonry when properly used.

LIMITATIONS:

- Repeated application, or dilutions with less than three parts fresh water, may damage some masonry surfaces. Use Sure Klean® Light Duty Restoration Cleaner or Sure Klean® Restoration Cleaner where possible.
- Not for interior use. Use Sure Klean® Light Duty Restoration Cleaner.
- Not suitable for polished stone and glazed surfaces. Use Sure Klean® Light Duty Restoration Cleaner.
- May etch window glass.
STAND OFF

OIL & GREASE STAIN REMOVER
Poultice cleaner for Embedded Oil & Grease Stains

Consolideck® Oil & Grease Stain Remover is a poultice cleaner for pulling stubborn oil and grease stains out of concrete. Just pour Oil & Grease Stain Remover on the embedded stain. It spreads out to make an instant poultice – no mixing, troweling, plastic covering or tape needed. As the poultice dries, it pulls the contaminants out of the substrate, capturing them in its highly absorbent blend of batter-thick surfactants, solvents and powders. After a 5–8 hour dwell, simply sweep up the dried poultice and its absorbed contaminants for easy disposal.

ADVANTAGES:
- Works on old, deeply set stains.
- Easy to use. No mixing or scrubbing needed.
- Works on concrete.
- Leaves no residue.
- Removes motor oil, brake and powersteering fluids, anti-freeze, hydraulic fluids, cooking oils, food grease and other oil-based stains.
- Will not discolor concrete.

LIMITATIONS:
- Not recommended for asphalt surfaces.
SURE KLEAN® HEAVY DUTY PAINT STRIPPER
Multi-Layer Paint Remover

Sure Klean® Heavy Duty Paint Stripper, an alkaline formula with organic solvents, removes multiple layers of paint and graffiti from masonry surfaces. This “slow-working,” extended-contact remover, remains active for 24 hours. One application of Heavy Duty Paint Stripper dissolves heavy accumulations of paint, most spray paint, lacquers and graffiti, restoring old masonry to its original appearance.

Follow paint removal with masonry neutralizing using the appropriate Sure Klean® product. Heavy Duty Paint Stripper contains no methanol, methylene chloride, or chlorinated solvents, and is water rinsable and nonflammable.

ADVANTAGES:

- Remains active up to 24 hours, cutting through heavy accumulations of paint and most types of graffiti.
- Nonflammable and highly effective on many common paint coatings.
- Gel consistency adheres to vertical surfaces; reduces spillage.
- Can be applied by brush, roller or conventional airless spray equipment.

LIMITATIONS:

- Product efficiency is reduced during cold weather. Surface and air temperatures should be at least 50°F (10°C) during application.
- Contains highly alkaline ingredients. Neutralize treated surfaces with Sure Klean® Limestone & Masonry Afterwash.
- Do not use on wood. Alkaline ingredients raise the grain of wood and may interfere with paint adhesion or performance.
- Not appropriate for metal surface.

SPECIFICATIONS:
For all PROSOCO product specifications, visit www.prosoco.com and click on “SpecBuilder” or “Solution Finder.”
TRUBOLT WEDGE ANCHORS
SPECIFIED FOR ANCHORAGE INTO CONCRETE

Trubolt Wedge Anchors feature a stainless steel expansion clip, threaded stud body, nut and washer. Anchor bodies are made of plated carbon steel, hot-dipped galvanized carbon steel, type 304 stainless steel or type 316 stainless steel as identified in the drawings or other notations.

The exposed end of the anchor is stamped to identify anchor length. Stampings should be preserved during installation for any subsequent embedment verification.

Use carbide tipped hammer drill bits made in accordance with ANSI B212.15-1994 to install anchors.

ICC Evaluation Service, Inc. # ESR-2251
– Category 1 performance rating
– 2006 IBC compliant
– Meets ACI 318 ductility requirements
– Tested in accordance with ACI 355.2 and ICC-ES AC193
– For use in seismic zones A & B
– 1/4”, 3/8” & 1/2” diameter anchors listed in ESR-2251

Underwriters Laboratories
Factory Mutual
City of Los Angeles - #RR2748
California State Fire Marshall
Caltrans

Meets or exceeds U.S. Government G.S.A.
Specification A-A-1923A Type 4
(formerlyGSA: FF-S-325 Group II, Type 4, Class 1)

Dependable,
Heavy-Duty,
Inspectable,
Wedge Type
Expansion
Anchor
ANCHORS
Drop in

AVAILABLE MATERIALS
• Carbon Steel, zinc plated

FEATURES/ADVANTAGES
• Ideal for form work and tilt-up bracing
• Accepts ½” or ¾” standard coil thread rod or coil thread bolts
• Preassembled for ease of installation
• Slotted body is precision-matched to tapered internal plug for uniform expansion
• knurled body increases frictional forces between anchor and wall of hole.

CONCERNS
• Dead load only
• Hole depth must be equal to anchor length
• Do not over torque

APPROVALS / LISTINGS
• G.S.A. Spec FF-S-325C, GroupVIII Type 1
• ICBO ER-3219

Installation steps

1. Drill hole same length as anchor. Do not use core bits. Maintain accurate hole size. Clean hole of debris.

2. Drop in anchor, slotted end first.

3. To set, drive setting tool into anchor until shoulder of tool is flush with top of anchor.

4. Select appropriate coil thread rod or coil bolt.
TAPER-BOLT®
Made in USA

AVAILABLE MATERIALS
• Grade 5, zinc plated
• Other metals and finishes are available for special quote
• Other body styles available for special quote are threaded stud version or eye bolt version.

FEATURES/ADVANTAGES
• Required hole diameter equals anchor diameter
• Undersize/oversize holes can be accommodated by turning the pre-expanded nut a few times
• Equipment may be removed and replaced. The bolt is simply re-inserted and torqued to obtain original holding power (the nut stays in the hole)
• Bolt can be removed and re-used with a new nut
• Strength - the highest tensile and shear strength of any expansion anchor
• Withstands vibratory loads better than any other expansion anchor

CONCERNS - Do not use in brick or block

APPROVALS/LISTINGS
• UL Listed 1/2” - 3/4”
• Tested by Pittsburgh Testing Laboratory PG-2170
• Contact customer service for approvals / listings for state D.O.T.s

INSTALLATION
1. Drill hole the same diameter as the Taper-Bolt using fixture as a template. Taper-Bolt works in a bottomless hole.
2. Drive Taper-Bolt into place leaving recommended head clearance. If hole is oversized simply remove and pre-expand the expander nut to fit hole.
3. Tighten Taper-Bolt recommended number of turns and/or recommended torque.
4. For big jobs, set Taper-Bolt with an impact wrench. This method offers speed, consistency and greater installer productivity.
UltraCon®
Masonry Fasteners

FEATURES
Fastener threads mechanically link to masonry, increasing joint integrity.
Available in 3/16” to 5/16” diameters, 1” to 6” lengths.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>ELCO CATALOG#</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/16 x 1 1/4”</td>
<td>LF305</td>
</tr>
<tr>
<td>3/16 x 1 3/4”</td>
<td>LF315</td>
</tr>
<tr>
<td>3/16 x 2 1/4”</td>
<td>LF325</td>
</tr>
<tr>
<td>3/16 x 2 3/4”</td>
<td>LF335</td>
</tr>
<tr>
<td>3/16 x 3 1/4”</td>
<td>LF345</td>
</tr>
<tr>
<td>3/16 x 3 3/4”</td>
<td>LF355</td>
</tr>
<tr>
<td>3/16 x 4”</td>
<td>LF365</td>
</tr>
<tr>
<td>1/4 x 1 1/4”</td>
<td>LF400</td>
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<tr>
<td>1/4 x 1 3/4”</td>
<td>LF410</td>
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<tr>
<td>1/4 x 2 1/4”</td>
<td>LF420</td>
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<tr>
<td>1/4 x 2 3/4”</td>
<td>LF430</td>
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<tr>
<td>1/4 x 3 1/4”</td>
<td>LF440</td>
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<tr>
<td>1/4 x 3 3/4”</td>
<td>LF450</td>
</tr>
<tr>
<td>1/4 x 4”</td>
<td>LF460</td>
</tr>
<tr>
<td>1/4 x 5”</td>
<td>LF470</td>
</tr>
<tr>
<td>1/4 x 6”</td>
<td>LF480</td>
</tr>
</tbody>
</table>

ADVANTAGES
When all three elements of the system (cold formed fasteners, precision-cut Elco® carbide drill bits and high-quality UltraCon® installation tools) are used, consistent performance and maximum pull-out strengths can be realized. Installs quickly, 2 to 3 fasteners per minute, when using UltraCon® installation tools.

APPLICATION
Concrete, brick or hollow block
Electrical boxes and clips to masonry
Wood headers, plywood, or furring strips to masonry
Window frames
COMMON NAILS

*Flat Head - Diamond Point*

Round Shank

- 16d--3½ in. x No. 8
- 8d--2½ in. x No. 10½
- 6d--2 in. x No. 11½

**DUPLEX HEAD NAILS (DX)**

*Diamond Point*

For use in scaffolds, concrete forms and temporary wooden constructions. They are easily pulled and can be re-used.

**DRYWALL SCREWS**

Sizes: 1 5/8”; 2”; 2 1/2”; 3”

**CONCRETE (MASONRY) NAILS**

Stocked in 3/4”; 1”; 1 1/2”; 2” and 2 1/2” lengths

Concrete nails are the most popular type of fasteners securing objects into masonry and other hard and brittle materials. Therefore, they are also called as masonry nails.
SINGLE TIP SPLINE SHANK HAMMER BIT

- Fits AEG, B&D, Bosch, Phillips, Milwaukee, Metabo, and all other rotary hammer machines with a drilling jig for a Spline Shank.

- Spines fit perfectly due to very close tolerances, and improved impact transmission means faster drilling.

SDS-Max

- Fits all Bosch SDS-Max™ and Hilti® TE-54, TE-52, TE-60, TE-72, TE-92 hammer drills.

- Vario-fluting body design extracts dust faster.

- Tapered body transfers more torque to the carbide cutting heads.

- Four carbide cutting edges drill 15% faster than standard bits.

- Meets 90 - 100% I.S.O. standards

- Sizes below 5/8” diameter are single tip (2-cutter) head design.

SDS Plus

Bosch SDS-plus® rotary hammer bit sets feature a patented 4-flute design that provides fast dust removal. The carbide-tipped drill bit heads are harder, tougher and more resistant to extreme loads.

ALSO AVAILABLE:

QUADRO TIP SPLINE SHANK HAMMER BIT
We stock a variety of Makita Power Tools, The Right Tool to suit the job!

**GRINDERS**
High power to weight ratio for increased production. Overload protector prevents motor burnout.

**SAWS**
Powerful 15 AMP motor. Heavy gauge aluminum wraparound base.

**DRILLS**
Powerful 6.5 AMP motor for heavy duty continuous production work. Durability and long tool life.

**ROTARY HAMMER**
1/2” Hammer Drill

SBE 751 Hammer Drill
Rated input power:750 W
- Maximum torque:266 / 115 in-lbs
- Max. capacity in concrete:3/4”
- Max. capacity in steel:1/2 / 0.315”
- Max. capacity in soft wood:1 5/8 / 1”
- No-load speed:0 - 1000 / 0 - 3100 RPM

Rotary Hammer

Suitable for bits and accessories with SDS Plus shank end.
Hammer stop. Rotation stop.
Forward and reverse running.
Metabo “Quick” drill chuck change.
Vario Tacho Constamatic (VTC) full-wave electronics.
Robust Metabo Marathon motor.
Pneumatic high-performance hammer mechanism.
Die cast aluminum gear housing.
Ergonomic housing design for fatigue-proof operation.
Metabo S-automatic torque limiting clutch.
Metabo winding protection grid.
Auto-stop carbon brushes.
Brush wear indicator.

KHE D-26 1" Combination hammer

- Max. single blow energy (EPTA):2.3 J
- Maximum impact rate:5400 BPM
- Rated input power:800 W
- Max. capacity in concrete with hammer drills:1”
- Bit retainer:SDS-plus

KHE 5-40 COMBINATION HAMMER

Max. single blow energy (EPTA): 7.5 J
Maximum impact rate: 3200 BPM
Rated input power: 1010 W
Max. capacity in concrete with hammer drills: 1 9/16 “
Bit retainer: SDS-max

Tools
Angle Grinders

With dust-sealed Metabo Marathon motor for extra-long service life thanks to the Metabo winding protection grid and powder-coated field winding.


W8-115  
4½” Angle Grinder

W11-150 Quick  
6” Angle Grinder

WE23-180  
7” Angle Grinder

WE 15-150 QUICK
6” ANGLE GRINDER

• Highest service life for extreme applications: robust, powerful angle grinder with greatest power density in its class for quick work progress
• New, patent-pending Metabo Long-life motor with up to 50% more torque and up to 20% higher overload capacity for quicker material removal and longer service life
• Tacho-Constamatic (TC)-Full Wave Electronics: fast work progress by means of constant speed under load
• Now even faster: M-Quick System for tool-free disc change at the touch of a button by means of M-Quick flange nut
• Side handle Metabo VibraTech (MVT) handle vibration damping for convenient continuous operation
• Metabo S-automatic Torque Limiting Clutch: minimises kick-back to the lowest level when the disc jams unexpectedly - for maximum user protection and swift progress

MHE 96
CHIPPING HAMMER

• Metabo VibraTech (MVT): integrated damping system to reduce vibrations in order to protect the user’s health
• Vario-Tacho-Constamatic (VTC)-Full Wave Electronics for working at customised impact rates to suit the application material remain almost constant, even under load
• Electronic soft start for smooth start-up
• Lockable switch for trouble-free chiseling in continuous operation

Max. single blow energy (EPTA): 20 J
Maximum impact rate: 1950 BPM
Rated input power: 1600 W
Bit retainer: SDS-max
ASR 35 Hepa Vac ALL-PURPOSE VACUUM CLEANER

- For extraction from the power tool in continuous mode, both on construction sites and in the workshop
- Especially suited for extracting concrete and rock dust
- Compact vacuum cleaner for liquids and dry solids with commercial registration
- AutoClean: Cost and time savings through automatic MPulse filter cleaning in continuous use
- If the optimum suction performance drops, the filters are vibrated immediately
- Suction power control for adapted suction performance
- Current Control: maximizes the suction power while the machine is connected so that the main fuse is not triggered.
- Power socket for power tool use activates automatically on start/shut-down of the vacuum cleaner

W 12-125 HD SET TUCK-POINTING 5” ANGLE GRINDER

- Robust tuck pointing system with dust extraction for quick removal of mortar joints
- New, patent-pending Metabo Long-life motor with up to 50% more torque and up to 20% higher overload capacity for quicker material removal and longer service life
- Metabo S-automatic Torque Limiting Clutch: minimises kick-back to the lowest level when the disc jams unexpectedly - for maximum user protection and swift progress
- Aluminum flange for long service life using heavy accessories, e.g. diamond discs
- Optimum visibility of the work area for precise working
- Connection for dust extraction Ø 2 1/4

Grinding wheel Ø:5 “
Rated input power: 1250 W
No-load speed: 9600 RPM
Torque: 36 in-lbs
**Bi-Metal Variable Pitch Hole Saws**

Cuts holes in wood, plastic, or any machinable metal, including: nail-embedded wood, plywood, pipe, stainless steel, etc.

### FEATURES
- Bi-Metal Construction
- M3 Cutting Edge
- 4/6 Variable Pitch
- Positive Rake
- 1½” Cutting Depth
- Separate Arbor Required

### ADVANTAGES
- Shock Resistant Teeth
- Higher Wear Resistance
- Reduces Vibration
- Better Chip Clearance

### BENEFITS
- Teeth Stay Sharp
- Long Life
- Smoother Cuts
- Fast Cutting
- Cuts Through 2” x 4”

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**Reciprocating Saw Blades**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>ADVANTAGES</th>
<th>BENEFITS</th>
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</thead>
<tbody>
<tr>
<td>Matrix II Cutting Edge</td>
<td>Shock Resistant Teeth</td>
<td>Resists Tooth Strippage</td>
</tr>
<tr>
<td>Tooth Hardness Rc 65-67</td>
<td>High Edge Hardness</td>
<td>Long Life</td>
</tr>
<tr>
<td>8% Cobalt</td>
<td>More Wear Resistance</td>
<td>Excepts more Feed Pressure for faster cutting with less</td>
</tr>
<tr>
<td></td>
<td>High Heat Resistance</td>
<td>distortion</td>
</tr>
<tr>
<td>Vacuum Heat Treatment with Special Temper Process</td>
<td></td>
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<tr>
<td>3/4” Width with .035” and .050” Thickness (thicker and wider than some competitors blades).</td>
<td></td>
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</tr>
</tbody>
</table>
CC1800XL
Small Saw with Large Saw Features

- 20 HP Honda engine
- 14” or 20” blade capacity
- Available in push or self propelled models
- Improved battery access
- Lift bar standard
- Self aligning blade shaft bearings
- New sturdy handles that can be reversed for easy cutting

Also available:
Core Rigs and Core Bits

Crack Chasing Blade

#1 Diamond Tool in North America

Faster cutting, longer lasting wet and dry blades backed by Diamond Products' unsurpassed service. Custom engineered blades and bonds crafted with top quality diamonds and powders.

HIGH SPEED SAW BLADES

CUP GRINDERS

CORE CUT blades made in the USA with world class metallurgical technology (off the shelf or available with custom bonds and specifications). Blades designed to run best on CORE CUT saws.

H7 - Hard, Reinforced concrete
H8 - General Purpose Concrete
H10 - Asphalt, green concrete
C14 ELECTRIC HANDSAW

Spend Less, Save Money
The C14 offers reliable power in an easy to handle design that costs you less while giving you more!

LIGHTWEIGHT & POWERFUL

Polishers

Our polishers provide more power which means greater production! The industry standard in concrete counter top polishing.
STIHL Cutquik® Cut-Off Machines are the right choice for your next construction job. Professionals trust STIHL for quality, dependability and performance. When the cutting gets tough, that’s when the pros turn to STIHL. STIHL Cutquik® cut-off machines power right through concrete, metal, asphalt, masonry, stone or ductile iron. The new TS 410 and TS 420’s air filtration system eliminate filter cleaning.

When it comes to demolition work, or cutting curbs and expansion joints, STIHL Cutquik® cut-off machines can help make the job quicker and easier. Check out a STIHL Cutquik® cut-off machine and get all the power and portability to get your next construction job done right.

ROCK BOSS GS 461

When you need to cut deep into concrete, reach for the Boss – the STIHL GS 461 Rock Boss®. This revolutionary concrete cutter changes the game with enhanced performance that cuts up to 15.7” deep into concrete, reinforced concrete (with rebar up to ½ inch), cinder blocks, masonry bricks, asphalt and soft stone. And it does all of this in a compact, lightweight package that is easy to maneuver and transport.

LEAF BLOWER

Do more in less time with a professional-grade STIHL blower. We offer a comprehensive line of handheld blowers.

FOR ALL YOUR EQUIPMENT NEEDS
SALES AND SERVICE

PULASKI, PA: 724-964-8822
Certified Stihl Technician on site!!!

APOLLO, PA: 724-727-2772
Certified Stihl Technician
SPECIALTY TOOLS

Estwing offers a fine variety of hacksaws, bars, specialty tools, hammers, Chisels to suit every job.

BARS - Pry Bar, Handy Bar, Claw, Ect.

HAMMERS - Nylon-Vinyl Grip Claw Hammers; Rip Hammers; Framing Hammers, Bricklayer Hammers, Drywall Hammers, Drilling Hammers, Welding/Chipping Hammers.
CAULKING GUNS

41004-XT Extra Thrust
- WCD - Approx. Doubles Gun Life
- Standard 10.3 oz. cartridge
- Mechanical Advantage 18:1

41001 - Wexford
- Non-drip Feature
- Standard 10.3 oz. Cartridge
- Mechanical Advantage 7:1

Model H-40
Heavy Duty Professional Cartridge Gun - requires one fourth the effort of ordinary Guns.
KRAFT
MASON & CEMENT FINISHING TOOLS

New ProForm Handle
Comfortable with special textured ribbing for the “Great Grip” Replacement wood handles & ProForm handles also available!

Margin Trowel - Forged in one piece from the highest grade trowel steel. Hardwood handle. Size: 5” x 2”.

Caulking Trowel - The blade is forged from high carbon steel and ground to right flex. Fitted with a comfortable steel ferrule maple handle. Blade is 6 3/4” long. Size 6 3/4” x 1/4”.

Wide London Trowel - 10”

Rubber Float - with very compact and dense molded rubber face. Securely cemented to an aluminum backing and fitted with a comfortable handle.

Straight End Edger
6” x 2 1/2” x 3/8” lip with 1/4” radius.

Magnesium Floats
Gives you the proper floating action made from very hard, fine dense grain magnesium for long life. The handle is firmly positioned for perfect balance. Blade has smooth round corners. Size - 16” x 3 1/8”.

Universal Groover Has a 6” x 3” blade and cuts a clean 1/2” x 1/2” groove. Long lasting. Rivet free.
Bronze Groover

One piece edger has turned up ends and a belt polished surface that gives clean, smooth edges.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Radius</th>
<th>Lip</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF311</td>
<td>6” x 2¼”</td>
<td>¼”</td>
<td>5/8”</td>
</tr>
<tr>
<td>CF313</td>
<td>6” x 4”</td>
<td>¼”</td>
<td>5/8”</td>
</tr>
</tbody>
</table>

Jumbo Bronze Edger

No. Size       Radius Lip
CF312 9” x 4” ¼” ¼”

Bronze Edger

One piece edger has turned up ends and a belt polished surface that gives clean, smooth edges.
MATCHED SET

Bronze Groover and Edger

No. Size
CF318 Edger, 6” x 3”, 3/8” radius

Meticulously crafted with belt polished surface that gives clean, smooth edges.

Fluted Rub Bricks -

Carbide rub bricks with a contoured handle to minimize fatigue.

No. Size Grit
CF283 6” x 3” x 1” 20
CF282 6” x 3” x 1” 20

No. Size Grit
CF270 6” x 1” 20
MAGNESIUM BULL FLOATS

Lightweight and long wearing magnesium floats are made from the finest extruded magnesium. Multi-ribbed top provides extra strength. Blades are properly curved and balanced to prevent digging. Complete with 4 hole bracket assembly.

4-hole

EZY-Tilt
- Made of rugged lightweight aluminum
- Pitch of blade controlled by turning handle
- Eliminates bending and lifting
- Fits only 2 metal bull floats
- Converter plate (CC287) required when mounting to 4 hole metal bull float

EZY-Tilt II
- Made of rugged lightweight aluminum
- One to one turning ratio of handle and pitch of blade.
- Eliminates bending and lifting
- Designed to fit all 2 or 4 hole metal bull floats

Square End | Round End
---|---
No. | Size | No. | Size
CC735 | 36” x 8” | CC803 | 48” x 8”
CC801 | 42” x 8” | CC804 | 60” x 8”
CC745 | 45” x 8” | CC808 | 72” x 8”
CC802 | 48” x 8” | | |
CC754 | 54” x 8” | |
CC760 | 60” x 8” | |
CC802NP | 48” x 8” | No Paint

Lightweight Concrete Spreader (Aluminum)
19½” long Has 2 braces for more strength and is lightweight. 54” wood handle.

We carry
CC965 and CC905
# FINISHING TROWELS

## CONCRETE

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF201PF</td>
<td>10&quot; x 3&quot;</td>
<td>CF226PF</td>
<td>18&quot; x 3&quot;</td>
</tr>
<tr>
<td>CF202PF</td>
<td>10&quot; x 4&quot;</td>
<td>CF225PF</td>
<td>18&quot; x 3½&quot;</td>
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<tr>
<td>CF207PF</td>
<td>11&quot; x 4&quot;</td>
<td>CF227PF</td>
<td>18&quot; x 4&quot;</td>
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<tr>
<td>CF211PF</td>
<td>12&quot; x 3&quot;</td>
<td>CF228PF</td>
<td>18&quot; x 4½&quot;</td>
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<tr>
<td>CF212PF</td>
<td>12&quot; x 4&quot;</td>
<td>CF229PF</td>
<td>18&quot; x 4¾&quot;</td>
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<tr>
<td>CF216PF</td>
<td>14&quot; x 3&quot;</td>
<td>CF546PF*</td>
<td>18&quot; x 5&quot;</td>
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<tr>
<td>CF215PF</td>
<td>14&quot; x 3½&quot;</td>
<td>CF231PF</td>
<td>20&quot; x 4&quot;</td>
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<td>CF217PF</td>
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<td>CF232PF</td>
<td>20&quot; x 5&quot;</td>
</tr>
<tr>
<td>CF218PF</td>
<td>14&quot; x 4½&quot;</td>
<td>CF233PF*</td>
<td>24&quot; x 4&quot;</td>
</tr>
<tr>
<td>CF219PF</td>
<td>14&quot; x 4¾&quot;</td>
<td>CF234PF*</td>
<td>24&quot; x 5&quot;</td>
</tr>
<tr>
<td>CF534PF*</td>
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<td></td>
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<tr>
<td>CF221PF</td>
<td>16&quot; x 3&quot;</td>
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<tr>
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<td>16&quot; x 3½&quot;</td>
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<td>CF222PF</td>
<td>16&quot; x 4&quot;</td>
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<td>CF223PF</td>
<td>16&quot; x 4½&quot;</td>
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<tr>
<td>CF224PF</td>
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</tr>
<tr>
<td>CF535PF*</td>
<td>16&quot; x 5&quot;</td>
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## STRAIGHT WOOD HANDLE

### Camel Back Handle
<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
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<tbody>
<tr>
<td>CF726B*</td>
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<tr>
<td>CF730B</td>
<td>12&quot; x 4&quot;</td>
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<tr>
<td>CF727B</td>
<td>14&quot; x 3&quot;</td>
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<tr>
<td>CF731B</td>
<td>14&quot; x 4&quot;</td>
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<tr>
<td>CF732B</td>
<td>16&quot; x 4&quot;</td>
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<tr>
<td>CF733B</td>
<td>18&quot; x 5&quot;</td>
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<tr>
<td>CF728B*</td>
<td>20&quot; x 4&quot;</td>
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<tr>
<td>CF734B</td>
<td>20&quot; x 5&quot;</td>
</tr>
<tr>
<td>CF735B*</td>
<td>24&quot; x 5&quot;</td>
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### ProForm Handle
<table>
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<tbody>
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<tr>
<td>CF730BPF</td>
<td>14&quot; x 4&quot;</td>
</tr>
<tr>
<td>CF727BPF*</td>
<td>14&quot; x 3&quot;</td>
</tr>
<tr>
<td>CF731BPF</td>
<td>14&quot; x 4&quot;</td>
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<tr>
<td>CF732BPF</td>
<td>16&quot; x 4&quot;</td>
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<tr>
<td>CF733BPF</td>
<td>18&quot; x 5&quot;</td>
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<tr>
<td>CF728BPF*</td>
<td>20&quot; x 4&quot;</td>
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<tr>
<td>CF734BPF</td>
<td>20&quot; x 5&quot;</td>
</tr>
<tr>
<td>CF735BPF</td>
<td>24&quot; x 5&quot;</td>
</tr>
</tbody>
</table>
MAGNESIUM HAND FLOATS  *NEW ProForm® Float Handle*

- Soft texture handle with cutting edge design provides superb floating action
- Special ribbing grips your hand...for that “Great Grip”
- Weather resistant handle..ideal for all climates

This popular float is made of a very hard and durable magnesium. The position of the handle gives the tool perfect balance. Both ends are beveled and the blade is broken in with rounded corners.

**MAGNESIUM FLOAT**

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF016PF</td>
<td>16” x 3 ¼”</td>
</tr>
<tr>
<td>CF020PF</td>
<td>20” x 3 ¼”</td>
</tr>
</tbody>
</table>

*Also available in Wide and Fine Line Magnesium float!*

WOOD HANDLE FLOATS

**Redwood** - Top quality redwood floats with comfortable handles. Lightweight.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF251</td>
<td>12” x 4½”</td>
</tr>
<tr>
<td>CF252</td>
<td>15” x 4½”</td>
</tr>
</tbody>
</table>

**Laminated Canvas-Resin**

Wears like magnesium for extremely long wear.

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF503</td>
<td>12” x 3½”</td>
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<tr>
<td>CF504</td>
<td>14” x 3½”</td>
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<tr>
<td>CF505</td>
<td>16” x 3½”</td>
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<tr>
<td>CF506</td>
<td>18” x 3½”</td>
</tr>
<tr>
<td>CF507</td>
<td>20” x 3½”</td>
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</table>

**Bodark**

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>CF642</td>
<td>16” x 2¼”</td>
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</table>

**Wood**

<table>
<thead>
<tr>
<th>No.</th>
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<tr>
<td>CF643</td>
<td>16” x 3”</td>
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<tr>
<td>CF644</td>
<td>20” x 3”</td>
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</table>

**Beveled**

<table>
<thead>
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<th>No.</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>CF256</td>
<td>15” x 3½”</td>
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</table>

**Redwood**

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF257</td>
<td>18” x 3½”</td>
</tr>
</tbody>
</table>

Replacement handles available
CLIMBING PRODUCTS

A NAME YOU CAN STAND ON®

Fiberglass  Planks
Aluminum  Stages
Wood  Scaffolds

• Ideal for professional jobs
• Max load 300 lbs.
• Electrically non-conductive

MASTERLOCK

Padlocks & Security Products

The Master Lock Company

We have your Lock!
• Keyed Padlocks
• Adjustable shackle
• Solid Steel, Solid Brass

• Covered Brass
• Hasps and hasplocks
• U-locks
• Safety lockout padlocks
Clevis stabilizer greatly extends diaphragm life and reduces pumping effort compared to our standard series pumps. Hand operated, no electric or air power source needed. Easy to operate, minimal maintenance required. Pumps most types of cementitious grout (not for epoxy-type grouts).

Makes an ideal tool for placing grout anywhere that high pressure is not required. Lightweight and compact.

**SPECIFICATIONS**

Models: Kenrich GP-1 HD and GP-2HD  
Pump Type: Single Diaphragm, Self Priming  
Power Source: Hand Operated  
* Output Capacity: 6 gallons/minute [48 cu. ft./hour]  
Output Pressure: 0 to 15 psi  
Hopper Capacity:  
  - GP-1 HD: .25 cubic foot (1.9 gallons)  
  - GP-2HD: .62 cubic foot (4.6 gallons)  
Placement Hose Size: 11/2” ID by 60 inches long, Clear Vinyl  
Discharge Head: 10 foot Vertical Lift  
Dimensions: 221/2” x 10” x 141/2” high  
  231/2” x 12” x 23” high  
Net Weight:  
  - GP-1 HD: 19 pounds  
  - GP-2 HD: 21 pounds

*Output and performance will vary depending on cycle rate, viscosity of the grout mixture and pressure conditions.*

**OPTIONS**

Hose Reducer Kits: 3/4” and 1” ID available  
11/2” ID Hose Lengths: 10 feet, 15 feet, and 20 feet  
11/2” Hose Ends: Straight, 90° and 180° Elbows  
Port Seal: Rubber, will fit 11/2” Hose Ends  
Hi-Capacity Hopper Kit: Converts GP-1 HD to GP-2HD Specification  
Handle: Vertical Actuator and Handle  
Replacement Parts
SPEED. ACCURACY. DURABILITY

TYPE 196 SMART LEVEL
24” & 48”

With audible tone, level tells you plumb, level or any angle in-between Level reads in 5 different languages:
1. Degrees
2. Percentage
3. mm/M- Millimeters per Meter
4. in/ft- Decimal inches per foot
5. in/ft- Fractional inches per foot
Display flips over when level is used upside-down
Easy one-button calibration/ Re-calibrate in less than 7 seconds
Soft/ Protective case included 1 year warranty
on Electronic module, lifetime guarantee on vials.

TYPE 196K LEVEL

- Light weight and Strong Frame
- Special plumb vial locations to put the bubble in front of your eyes no matter which course you are on.
  Wide open Plumb Vials for maximum visibility
- Strike Zones- Blow shields are designed to be hit with a trowel
- Centered hand holes (on 36” and 48” levels) for one handed balance
- Wide open horizontal vial- Less bending over-better for your body
- Easy to clean vials and frame- smooth design for removal of mortar
- Removable and replaceable rubber end caps
- Always Trust- Never Adjust

BENT LEVELS VOID WARRANTY

A variety of sizes and models available!
Electronic Level

Tools
LEVELS

Torpedo

No. | Size
--- | ---
GG450 | 19"

Brass Bound Mahogany Levels

Professional Mahogany Brass Bound Level

- Made from the finest selection of mahogany wood
- Angle type brass bindings on all edges

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL244</td>
<td>24” w/hand holes</td>
</tr>
<tr>
<td>BL248</td>
<td>48” w/hand holes</td>
</tr>
</tbody>
</table>
Eagle Type II SAFETY CANS are made of Galvanized Steel, help reduce the danger of explosion while dispensing flammable liquids thru a flexible metal spout. Brass flame arrestors in filler opening and pour spout.

CABINETS
Safety Storage
Flammable Liquid Storage
Acid/Corrosive & Paint/Ink
Pesticide & Space Saver
Compact, Drum and Haz-Mat
Cabinet Accessories

SQUEEGEES
Window Squeegees
Floor Squeegees

Floor Brushes - Coarse, medium, fine sweeping. Strip brooms, garage brushes, street brooms, etc.

Wire Brushes. Handles and Accessories. Mops, Scrub Brushes, Window and Dusting Brushes, etc.

OSHA APPROVED available.
When it comes to providing top cleaning performance, STIHL delivers pressure washers combining power and high-quality components. Whether you need to clean your deck or your professional equipment, STIHL power washers are designed for convenience and durability to make your job easier and impeccable. Ready to power wash with STIHL?

STIHL portable cold water High Pressure Cleaners remove even the most stubborn dirt, ideal for use around the property or for serious users. Buy Better with STIHL.
PAINT BRUSHES

We offer a full line of paint brushes and accessories!

Peerless Industrial Group is recognized as a national leader in the chain and fitting industry...Your Link to Quality, Strength and Service since 1917.

CABLES, AND MORE...
We offer products by Coleman Cable, the finest available.

Polar/Solar Plus®
Extension Cords - UL Listed - Meet OSHA requirements for outdoor use. All-purpose portable cord stays flexible even under the most extreme temp. conditions. Saves money because it lasts longer.

Trouble Lights Polar/Solar®
UL listed - Meet OSHA Spec. Heavy duty featuring Coleman's exclusive T*Prene insulated cord. Stays flexible under extreme temp. conditions.
· Commercial grade construction
· Handles hot water up to 180 degrees.
· 400 PSI burst strength.
· Abrasion resistant.
· Heavy duty brass coupling for unrestricted water flow.
· Double cord reinforced.
· Flexible and kink resistant.

Nylon Hose Menders
Gilmour nylon menders and couplings are the strongest available to replace female and male hose couplings.

Polymer “Y” with Shut-offs
· Non-corrosive high impact polymer. Full ball and retainer rings reduce leakage, twin shut-off valves even at low pressure.
· Cap type valve handles resist breakage.
· Not recommended for hot water usage.

Pistol Grip Nozzles
· Grip is molded directly on nozzle body.
· Every Gilmour water nozzle is 100% water tested to ensure years of leakproof service.

Powder Coated Water Shut-Off Valves
Rubber Hose Washers
Spray Doc
And more.

ROPE & TIE DOWNS
Braided cotton, sisal and nylon ropes in diameters of 1/4”, 1/2”, 3/8” & 5/16”. Rope is sold by the roll, and in some cases by the linear foot.

Braided Nylon Line - Tough, rugged braided line for the mason who likes to pull a tight line. Our 318 line resists abrasion and alkali, strong 170 lb. test. Built-in elasticity maintains tension for no-sag line. Yellow line 250’ & 500’ long.

Tie Downs for your truck sold in 15” rubber, 21” rubber and Elastic Cord Assortment.
MARKING & MEASURING TOOLS

K-Line Quality Fiberglass Tape Measures. Large crank handle to rewind. Lengths include 100 ft., 200 ft. and 300 ft.

Roadrunner Measuring Wheels

Long distance measuring wheel measures more accurately over rough surfaces.

CHALK LINE REEL & ULTRA-FINE MARKING ChALK

Perfect for all layout work, for speed and efficiency, don’t use anything else.

PRESSURE SENSITIVE TAPE

- Masking
- Strapping
- Cloth/Duct
- Vinyl/Plastic
- Printable
- Flame Retardant
- Cloth
- Packaging
- Foils
- Double-Faced
- Dispensers
- Specialty

SAFETY TAPES

- Caution Tape
- Flagging Ribbon
- Plastic Marking Flags

DUCT TAPES

- Silver 2” Tape
- Premium Grade
- Superior Grade
- Contractor
WALK BEHIND POWER TROWEL

Multiquip Whiteman trowels were the first on the market and continue to lead in quality, reliability and innovation.

MVC88VT
The new MVC88 now features a single cast baseplate and eccentric housing to enhance plate durability, serviceability and performance. An hour/tachometer to help measure runtime and engine rpm is now a standard feature. The plate is even easier to transport with the new wheel kit design. All this combined with an advanced anti-vibration handle make the MVC88 the newest and most technically advanced plate compactors on the market.

MTX60HD
For applications requiring even greater productivity, Multiquip's Mikasa MTX60HD 4-cycle rammer is the answer. Now with a redesigned fuel-tank that meets new EPA standards and features an integrated tachometer/hour meter.

WHITEMAN MIXERS
Whiteman's towable mixers have the features, quality, and engineering excellence preferred by the contractor and equipment rental industry. Our steel plaster/mortar mixers are available in a full range of sizes and engine configurations.
POWER MIXER
Hand-held mixers are the newest generation of mixing drills.

Optimum performance and perfect ergonomics. That’s what the new Xo hand-held mixers are. Easy to operate with a straight back and ergonomically shaped grip handles. State-of-the-art motor and gear unit components for long service and safety while working. For your safety every Xo hand-held mixer is equipped with a Double Action Trigger (with safety lock-off to prevent unintentional machine start-up). With HEXAFIX® tool connection.

Mixing:
Superior engineering and the highest quality components for top-rate performance when it comes to reliability and results. As the specialist for mixing, Collomix once again sets new standards for the market.

Power Mixer Xo1

Technical data
Power 10.0 amps / 1.4 hp
Power supply 110 -125 V
Gears 1
Speed / load 0 - 590 rpm
Diameter stirrer 4 3/4”
Mixing volume: up to 10 gal.
Double Action Trigger Yes

Perfect Ergonomics:
Do your work with a straight back?
With the position of the handle moved further upwards, the operator can stand upright while working, because the ergonomically shaped handles provide for a firm and effortless grip.

Power Mixer Xo4

Technical data
Power 11.8 amps / 1.7 hp
Power supply 110 -125 V
Gears 2
Speed / load 0 - 470 rpm
0 - 640 rpm
Diameter stirrer 5 1/2”
Mixing volume: up to 17 gal.
Double Action Trigger Yes

Optimum Performance and Reliability:
State of the art motor and gear components result in long service life and safety while working, with each subassembly fitted separately for ease of maintenance.

Reduced Noise:
New type of noise insulation for less job-site noise.
HOES, SCRAPERS, CONTRACTOR RAKES

**Razor-Back fiberglass handled tools** have the strongest conventional handles made for industrial use. Dynamic load tests show a marked superiority over other tools in the premium class.

**Razor-Back wood handled tools** use the finest handle wood known - premium X grade Northern White Ash. Cut, shaped and lacquered in one of our own handle plants, they’re noted for their natural flexibility and high strength to weight ratio.

The Razor-Back rake is forged from a single bar of high-carbon steel, the strongest design known. The head and the end teeth are noticeably wider. **Contractor rakes** have heavy, straight teeth or edges for spreading material with a push-pull action.

Razor-Back offers the forged socket pattern for **scrapers, hoes and edgers**. The head and socket are forged from a single piece of steel. Then, the handle is nailed into the socket. This is the strongest, most durable design known today.

**STRIKING TOOLS**

- **PICK MATTOCK**

- **CUTTER MATTOCK**

- **PICKS**

- **RAILROAD PICK**

Razor-Back **striking tools** include all the most popular heavy hammers, axes, mauls and bars.
SHOVELS

WOOD
Largest steel blade
Closed or open back blade
Double rivets
Painted blade
Polished tab socket
White ash handle
Steel/Wood D-grip

FIBERGLASS
Largest steel blade
Closed or open back blade
Double rivets
Painted blade
Polished tab socket
Fiberglass handle
Steel collar
Poly D-grip

Razor-Back closed back industrial duty blades are stamped from sheets of industrial-gauge steel, then heated and formed into final shape. A thick steel plate welded over the open back adds strength and prevents material build-up.

Razor-Back solid back design is the strongest available. Blades and sockets are forged from a single bar of steel. Fully one-half inch thick at the socket, the blade is tapered to a fine cutting edge. The socket is solid at the critical point where it meets the blade. Open back blades are the most popular on the market today. Their construction is identical to closed back models, though without the welded bottom plate.

SCOOPS

Razor-Back Aluminum scoops are non-sparking and naturally rust-proof. The exclusive acid-etched finish will not flake or wear off.
The Early Entry Sawing System that Minimizes the Risk of Random Cracking in Concrete

Husqvarna Soff-Cut™ technology is a unique patented system for early entry concrete sawing. This technology enables concrete to be cut within the first one or two hours of finishing and before final set. Husqvarna Soff-Cut™ provides the best solution for minimizing the risk of random cracking, and it simplifies the working process, compared to conventional sawing.

Soff-Cut 390

Electric saw designed for residential and light commercial applications.

- Voltage/amps: 110/15
- Blade diameter, in (mm): 5 1/2 (140)
- Depth of cut, in (mm): 1 1/8 (28)
- Weight, lbs (kg): 27 (12)

Soff-Cut 150

Designed for residential and light commercial application such as driveways and parking lots.

- Power: 4.5 hp
- Blade diameter, in (mm): 6 (152)
- Depth of cut, in (mm): 1 3/6 (30)
- Weight, lbs (kg): 87 (39)

BLADES

- Ultra Early Entry line of diamond blades
- Designed and tested to meet all aggregate conditions
- Blades have been improved for greater performance and 20% longer life
- Blades are color coded with a translucent paint according to the blade name and type of material it cuts
- Triangular shaped safety arbor fits precisely on the saw arbor

Excel 3000 Series Red

The Husqvarna Excel 3000 Series Red features unique triangular arbor configuration and cuts medium to hard aggregate, medium abrasive sand.

- Type: Dry
- Blade diameter range: 5-13.5”

Excel 5000 Series Yellow

The Husqvarna Excel 5000 Series Yellow features unique triangular arbor configuration and cuts medium to soft aggregate, abrasive sand.

- Type: Dry
- Blade diameter range: 5-13.5”
Tie-Wire Reel
No. 27400

Rugged, lightweight reel feeds pre-coiled wire smoothly, easily and quickly. Saves time and reduces wasted wire. Handles all types of tie-wire and is designed for left- or right-hand use.

6 1/4” Dia. x 2 15/16” W (159 x 75mm).

Reel is smooth aluminum alloy with wear parts made of steel. Has large, comfortable rewind knob, nylon bushing for smooth, trouble-free operation. Optional accessory rigging-leather belt and hip pad available separately.

LONG NOSE PLIERS

HEADLAMP

SIDE-CUTTING PLIERS
No. 201-7CST

Specially designed and sharpened for cutting soft annealed tie wire used on reinforcing rods. Special, heavy, knurled jaws. Hood bend in one handle for non-slip grip. Coil spring holds jaws open. Plastic-dipped handles.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
<tr>
<td>D201-7CST</td>
<td>8 3/4</td>
<td>1 9/32</td>
<td>1 5/32</td>
<td>1/2</td>
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<tr>
<td>HD213-9NE</td>
<td>9” Side-Cutting Pliers</td>
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<tr>
<td>D2000-9ST</td>
<td>9” Ironworker’s Work Pliers</td>
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</tbody>
</table>

FORM-STRIPPING & NAIL-PULLING BAR
No. 64306

A heavy, strong, multi-purpose tool that saves time and effort on the job. Its 3” width (7.6 cm) protects concrete when stripping forms. Its efficient blade angle and 55” total length provides high leverage as a crow bar and nail and spike puller. Blade is hardened alloy with keyhole nail-pulling slot in center and V-notch in tapered edge.

Klein Tools lights are designed to make life brighter and easier, with leading-edge solutions for illumination on and off the job site. The Headlamp has an anti-slip silicone strap to keep it securely fit to a hard hat. A 45-degree tilt allows the user to vary the beam direction to focus light exactly where it is needed. The strap is pre-adjusted to fit quickly onto a hard hat.
### Cat. No.  Description

3212  Erection Wrench, 1-1/4” Bolt, for U.S. Heavy Nut  
3214  Erection Wrench, 1-5/8” Bolt, for U.S. Heavy Nut  
64306  Grizzly® Bar  
64312  Rebar Hickey, Bends #7 thru #9 Rebar, 65° Angle  
64309  Rebar Hickey, Bends #3 & #4 Rebar, 65° & 90° Angle

### REBAR HICKEY

64309  The Klein lightweight rebar hickey has exceptionally durable steel-alloy head for your rebar bending needs. Its extra-strong handle is built to withstand punishing service conditions. With its superior engineering and manufacturing, this rugged tool has a long and trouble-free usage life.

64310  The Klein lightweight rebar hickey has exceptionally durable steel-alloy head for your #5 rebar bending needs. Its extra-strong handle is built to withstand punishing service conditions. With its superior engineering and manufacturing, this rugged tool has a long and trouble-free usage life.

64311  The **Klein lightweight rebar hickey** has exceptionally durable steel-alloy head for your #6 rebar bending needs. Its extra-strong handle is built to withstand punishing service conditions. With its superior engineering and manufacturing, this rugged tool has a long and trouble-free usage life.

64312  The Klein lightweight rebar hickey has exceptionally durable steel-alloy head for your #7 rebar bending needs. Its extra-strong handle is built to withstand punishing service conditions. With its superior engineering and manufacturing, this rugged tool has a long and trouble-free usage life.
POLYETHYLENE HOPPERS

HOPPERS are constructed from highly durable, yet lightweight plastic for easy handling. The intake is 36” square with a graduated discharge that can be trimmed to fit 6”, 8”, and 12” diameter Elephant Trunks.

Concrete Handling
Accessories

STEEL BANDING CLAMPS are universally sized for securing any Elephant Trunk to Hoppers or Collars.

ELEPHANT TRUNK is a flexible PVC chute used to confine and direct concrete during placement in forms. Hoppers, Collars, and Clamps are convenient accessories for safely and efficiently funnelling concrete into the Elephant Trunk.

Elephant Trunks are shipped in 50’ rolls but should not be used in lengths greater than 25 feet.

Made from Polyvinyl Chloride
• Economical
• Easily cut to desired lengths
• Ribbed for strength
• Makes tight pours EASY

SIZES AVAILABLE
• 50 Ft. Lengths
• 8” Diameter
• 12” Diameter
CONCRETE TEST EQUIPMENT

Curing Tank Immersion Heater
CA-0933
This curing tank immersion heater has an adjustable thermostat and a 1,000 watt 15 amp incolloy shielded heating element that resists rust. Its stainless steel control box is equipped with an on/off switch, pilot light, 65” long 3 prong grounded plug, 19” long heating element, is fused for protection, mounting bracket and complete instructions labeled on control box.

Heater is designed for indoor operation to maintain up to a 350 gallon tank at specified temperature when ambient temperature is 53°F or above. Its heating efficiency is increased when used with one or more water circulating pumps, depending on tank size.

Circulating Pump
CA-0935
This curing tank circulator is a 1/160 hp (30 watt) silent submersion pump with 120 GPH rating. The steady circulation from the .25” MNPT discharge can be aimed by placing the housing on any of five sides. Includes 6’ grounded cord.

THERMOMETERS

Maximum and Minimum Thermometer
Dual-scale thermometer has U-shaped capillary mounted in plastic 8x2-5/8x1’ (203x67x25mm) with guard and mounting tab. Ranges 40°F to 120°F in 2°F div. and 40°C to 50°C in 1°C div. Thermometer indicates present, highest and lowest temperature since last indices setting. Indices are easily reset after each reading.

TAMPING ROD

The Cat# TR375 is a 3/8” diameter by 12” length, rounded hemispherical tips, less scale. Used Primarily on 4” test cylinders. Meets ASTM C138

SLUMP CONE TEST SET

Slump cone test set for measuring slump of freshly mixed concrete. It has no seams or rivets so the inside is smooth from top to bottom. Includes a specification rodding iron and instructions.
Meets ASTM, C31, C143, C172, C192, C232, AASHTO T23, T119, T126, Y141, T158

CONCRETE TEST EQUIPMENT

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Tools
NYLON SLINGS

Available in one ply and two ply

ONE PLY

<table>
<thead>
<tr>
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<th>VERTICAL</th>
<th>CHOKE</th>
<th>BASKET</th>
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<td>EE1-012</td>
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How to order Nylon Slings:
1. Select the style
2. Choose the type of hitch
3. Determine the rated capacity
4. Determine bearing to bearing length in feet
5. Order Sling by stock number

NYLON WEB SLINGS

Including endless style, reversed eye style, eye & eye style - flat or twisted eye styles, single or multiple plys, 1” thru 12” widths, regular or heavy duty.
Industrial Innovation & Quality
The sprayers that set the standard in the industry.

**TRI-POXY®**
and **STAINLESS STEEL SPRAYERS**

Chapin is the only supplier of compressed air sprayers to offer a 12-step computer controlled TRI-POXY coating process that inhibits corrosion and rust on all interior seams, welds, crevices, bottoms and walls. We are the only manufacturer with the technology required to implement this TRI-POXY application.

**1949** The industry standard. For form oils and curing compounds, this sprayer is the reliable workhorse the concrete industry turns to. Features 3.5 gallon capacity, brass pump, metal ergo handle and brass extension wand with convenient holster and nozzle clip. Sprays 30 - 35% solids. Equipped with Vitron Seals and Tri-Poxy Lined tank.

**19049** Like the 1949 with upgraded Xtreme seals and hose to handle the most extreme chemicals & high concentrations of Acetone, Naphtha, Xylene & Toluene.

**19249**
**XTREME INDUSTRIAL CONCRETE SPRAYER WITH DRIP-LESS SHUT-OFF**

The NEW Chapin Xtreme Industrial Concrete Sprayer can handle extreme chemicals and high concentrations of xylene, toluene, acetone, and naphtha and features a dripless shut-off.
Viton seals and gaskets provide maximum protection against chemical corrosion. Viton is Dupont’s most durable, fluid resistant fluoroelastomer compound, providing superior resistance to oil, lubricants, and hydrocarbons.

Chapin 1280 2-Gallon Premier Pro Tri-Poxy Steel Sprayer
Sprayer - Model #1280

- Durable 2-Gallon Tri-Poxy tank with a 4-inch wide funnel-mouth opening for easy filling.
- Compatible with common fertilizers, weed killers and pesticides
- Brass wand and adjustable brass nozzle for a variety of applications
- Brass Shut-off with lock-on feature for fatigue-free spraying
- Ergonomic handle for easy pumping and carrying

Chapin 1002 48-Ounce Multi-Purpose Sprayer
Sprayer - Model #1002

- 48-ounce poly bottle with wide mouth for easy filling and cleaning
- Compatible with common fertilizers, weed killers and pesticides
- Adjustable nozzle for fine mists to coarse streams
- In-tank filter
- Ergonomic Handle
PRO PACK™
COUNTERTOP ADMIXTURE

In addition to decorative floors and walls, concrete countertops, table tops and other concrete accent pieces are also in high demand to further enhance an interior or exterior space. The versatility of Butterfield Color® countertop products allow for truly unique and fully customized creations.

- Pre-measured admixture pack designed to be combined with most standard concrete bag mixes and water.
- One admixture pack combined with either an 80 lb. bag or a 60 lb. bag of standard concrete mix will convert most economical concrete bag mixes into high performance concrete countertop mix.
- Increases strength, reduces shrinkage, improves finishing characteristics, accelerates set time and allows decreased water cement ratio.
- The mix may be colored with Butterfield Color® Uni-Mix® Integral Color Packs (2 color packs per unit are required), 24 Standard colors are available.
- Mixes containing Pro Pack™ Countertop Admixture may be stained by applying Perma-Cast® Sierra Stain™ or Elements™ Transparent Concrete Stain.
Decorative concrete overlays give new life to structurally sound, worn existing concrete surfaces. Butterfield Color® has engineered a number of concrete overlay systems to provide the precise blend to transform blemished concrete into a fresh canvas to achieve any imagined decorative concrete look.

- A polymer modified micro-topping that mixes with water.
- Create an abrasion resistant surface ideal for restoring worn or color blemished concrete.
- Apply with squeegee trowel or standard trowel.
- Available in two grades: Base Coat and Finish Coat, each grade available in cement gray.
- Application thickness range: Base Coat 1/16”-1/8” Finish Coat 1/32” to 1/16”
- Approximate coverage: Base coat is 96 ft² per 25 lb. bag applied at 1/16” thickness; Finish coat is 96 ft² per 25 lb. bag applied at 1/16” thickness.
T1000™ STAMPABLE OVERLAY

- Packaged in 55 lb. bags. Each bag, when properly mixed with water, provides for approximately 24 SF at 1/4” thick.
- A polymer modified, cementitious material designed for resurfacing and texturing stable, non-moving concrete floors and hardscapes.
- Single application thickness can range from 1/8” to a max of 1/2”, depending on thickness desired.
- Use with T1000™ Primer to provide enhanced adhesion and workability of the material.
- Wide range of Uni-Mix® Color Packs available. Available in Cement Gray and Cement White
- Compatible with Butterfield Color® release agents, stamping tools, or stains.
T1000™ FINE OVERLAY

- Packaged in 55-lb. bags. Each bag, once properly mixed with water, provides a coverage rate of approximately 96 SF at 1/16” thick.
- A polymer modified, cementitious material designed for resurfacing and texturing stable, non-moving concrete floors and hardscapes.
- Single application thickness can range from 1/16” to a maximum of 3/16”, depending on thickness desired.
- Use with T1000™ Primer to provide enhanced adhesion and workability of the material.
- Wide range of Uni-Mix® Color Packs available.
- Multiple applications methods possible, smooth trowel, broom finish, splatter brush, or sprayed with a hopper gun.
- Compatible with Butterfield Color® stains or stencils.
- Available in both Cement Gray and Cement White.
OVERLAY TOOLS

Self-leveling Kit
This complete kit holds all the tools needed for a self-leveling installation. The kit includes measuring pitcher, oval mixing paddle, gunite spiked shoes, gauge rake, stainless steel smoother/spreader, broom thread handle, which all fit conveniently in the mixing barrel with locking lid.

- All items included to mix and install
- Self-Leveling material
- Used in Concrete Restoration

EZY Deck Pro Gun & Hopper
- Large 2.5 gal hopper with built in control handle
- 40 degree hopper angle for easy spraying

12” Squeegee Trowel - GG242
A contractor’s favorite. Use this squeegee trowel to smooth a variety of coatings in concrete restoration, decorative concrete, drywall and general construction. The 12” flexible blade is easy to control and provides the desired coverage for materials. The patented ProForm soft grip handle is comfortable to grasp. Extend the tools reach for ceilings, floors, or tall walls by connecting a threaded broom handle to the end. The handle features a hang hole for convenient storage. Product includes a blade protector to extend the life of the tool. Proudly made in the USA.

- Smooth coatings for concrete restoration, self-leveling material, drywall material and more
- Flexible blade is easy to control while providing optimum coverage
- Comfortable hand grip has a place for threaded broom handle to extend reach
- Blade protector extends the life of the blade

22” Squeegee Trowel - GG246
Use this squeegee trowel to smooth a variety of coatings in concrete restoration, decorative concrete, drywall and general construction. The 22” flexible blade is easy to control and provides the desired coverage for materials. The patented ProForm soft grip handle is comfortable to grasp. Extend the tools reach for ceilings, floors, or tall walls by connecting a threaded broom handle to the end. The handle features a hang hole for convenient storage. Product includes a blade protector to extend the life of the tool. Proudly made in the USA.
Dura-Stain Chemical Acid Stain
Chemical, or Reactive Stains, can be applied to new or old, plain or colored and stamped concrete surfaces. Chemical Stains penetrates and permanently stains new or existing concrete and wears only as the concrete wears. Use a reactive stain for creative faux finishes, permanent and variegated colors, no chipping or peeling and lasting results. Concrete should be sufficiently cured before application of Dura-Stain.

Dura-Color EZ-Accent Water-Based Stain
Proline Dura Color EZ-Accent is a water-based acrylic stain that is specially formulated to accent any decorative concrete surface. It is a translucent stain that is designed to blend with the base color over which it is applied. EZ-Accent is quickly and easily applied to decorative concrete flatwork, vertical surfaces and rockscaped for accent colors and natural-looking variations. There are 15 standard EZ-Accent colors. Available in 4 oz. and 1 gal. containers with a rate coverage ranging from 5-20 square feet to 400-800 square feet.
PRO-STAIN
Pro-Stain is a water-based, high quality stain made for use with existing unsealed interior or exterior concrete surfaces. It penetrates the surface of concrete and forms a breathable finish that can be sealed when dry.
A complete kit requires two 32 fl. oz. bottles which form the Base product, and one 2 lb. jar of Pro-Stain Pigment. Pigment color is selected and purchased separately from Base.

COVERAGE: Two coats at 300-400 square feet each.

Reclaimed Timber Planks
When you place the Reclaimed Timber in or around your home, you have brought a piece of history with you. Every scratch, nail hole, bolt and knife mark has a story of its own.

Available in 8”, 12” and 16” widths and up to 8’ lengths.
Brickform Texturing Products

Brickform is proud to offer the largest selection of texture patterns with the highest degree of quality and precision. Our large selection of unique patterns and designs give the Architect and the Homeowner the options they need to create something truly special. The precision design, durability, and easy use give Contractors the tools they need to make those visions into realities.

STONE TEXTURE MATS - If you desire the charm and beauty of natural stone, but not the expense and inconsistency, our Stone Texture Mats are an ideal choice.

SLATE TEXTURE MATS - Clean, sleek, and natural. Slate makes a wonderful choice for flooring. Achieve the same look without the headache by using our Slate Texture Mats.

BRICK TEXTURE MATS - Laying brick is backbreaking work. Save the hassle and bring the classic look into the modern world with our Brick Texture Mats.

TILE TEXTURE MATS - The classic appearance of tile, with the durability of concrete. Our Tile Texture Mats add class and charm to interior and exterior surfaces.

SEAMLESS SKINS - Achieve a consistent texture without worrying about grout lines, seams, or joints. Our Seamless Skins can also be pairs with texture mats to achieve even more unique textures.
Seamless Skins™

Old Granite Cleft Stone
40GR $160

Seamless Roman Slate
4RSR $160

Seamless Italian Slate
4ISR $160

Santa Fe Random Stone
RS700AR $160

Reclaimed Timber Planks
BW1600R $200

Gilpin Falls Planks
BST7380R $200

Proline Wood Planks
BW170R $160

Hadley Creek Shale
BST8548R $160

Decorative Concrete
Proline Seamless Skins™

Old Granite Cleft Stone  Seamless Roman Slate  Seamless Italian Slate

Santa Fe Stone

Innovative Interchangeable Mats

A natural stone with an exclusive characteristic. Our Santa Fe Random Pattern comes in 3 sizes of stone—small, medium and large—with a light sandstone background.

What makes this pattern unique is that the 3 sizes are interchangeable—for a truly random natural look. Consider using our Santa Fe Random Stone Small in walkways, leading to large drive-way areas using a mixture of Santa Fe Stone Medium and Santa Fe Stone Large. Scale up or down—it’s so easy with Proline’s Santa Fe Stone Series. Added bonus: each size comes in 2 different color-coded patterns, allowing for a more random pattern.

There are a total of 12 stamp patterns in this series.
SAFETY FIRST!

Safety Cones
Safety Strobe Lights
Safety Vests
Stop Signs
Hard Hat
Flagging Tapes
Plastic Fence
Safety Glasses
Caution Tape

Meets D.O.T. requirements.
Reflexite white stripes.

Silt Fence Post

Made from t-post stock, silt posts are available in a variety of weights and lengths for different applications. They do not include an anchor plate.

Studded silt t-posts are designed for easy installation and trouble-free service for right of way and silt fencing. These unfinished posts benefit from rail steel's inherent weathering resistance.
SAFETY FENCE
Tenax Safety Protection for Work sites

Nothing Beats Tenax Products for Visual Impact and Consistent Performance

For complete work site safety, Tenax also produces a full line of debris nets and scaffolding nets. To protect workers and passersby, contain work site debris and secure scaffolding, you can rely on Tenax nets.

*Highly Visible - Strong - Durable - Aesthetically Pleasing - Economical - Low Maintenance*

RESOL 4’ x 100’  8 lbs. 100 / skid

**TENAX BEACON PLUS™**
Safe, Smooth, Attractive: that’s the Sentry™ product line of safety fence.

Its diamond mesh ensures aesthetic appeal, while smooth top and bottom borders make both style fences less likely to cut and scrape adjacent materials during installation.

**Horizontal Oval Mesh**

<table>
<thead>
<tr>
<th>Roll Sizes (ft.)</th>
<th>Mesh Sizes (in.)</th>
<th>Colors</th>
<th>Rolls/Pallet</th>
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**SENTRY SECURA™**
Diamond Mesh

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<th>Mesh Sizes (in.)</th>
<th>Colors</th>
<th>Rolls/Pallet</th>
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<tbody>
<tr>
<td>4 x 100</td>
<td>1.5 x 1.25</td>
<td>Orange</td>
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</tr>
</tbody>
</table>
HARNESSES

H55101
- Full Body Harness
- Pass Through Leg & Chest Connectors
- 3 Pt. Mating Buckle Chest and Legs
**Material:** Polyester
**Purpose:** Economy
**Meets or Exceeds:** ANSI Z359.1-2007, ANSI Z359.11-2014, OSHA 1926.502

H39112
- Full Body Harness
- Pass Through Chest Connectors
- Grommet Leg Connectors
- Friction Torso Adjuster
- 5 Pt. Mating Buckle Chest, Tongue Buckle Legs
**Material:** Polyester
**Purpose:** Economy
**Meets or Exceeds:** ANSI Z359.1-2007, ANSI Z359.11-2014, OSHA 1926.502

SELF RETRACTING DEVICES

SRL 0082540
- 8’ Self-Retracting Lifeline
- Composite Housing
- Small 3/4” Hook
- Rated to 310 lbs.
- Includes Carabiner
**Material:** Web
**Meets or Exceeds:** ANSI Z359.14-2012, OSHA 1926.502

LANYARDS

LM3611 - Single leg, internal, 2 snap hooks
RBC211 - Chain/Rebar Positioning Assembly, 23”

CARABINERS AND CONNECTORS

AP33 - Pass Through, 2D-Ring, 3: WP 36”
AP36 - Pass Through, 2D-Ring, 3: WP 72”

SAFETY ITEMS

LU-2 - Suspension Trauma Relief
TS 18/30 - Tool Spider - Tool Lanyard
PROTECTIVE WEAR

V-Gard Hardhats

Product Description
Consist of a polyethylene shell and suspension system working together as a protection system. Hat styles, with the cap available in three sizes.

Approvals and Standards
V-Gard Caps and Hats meet or exceed the applicable requirements for a Type I helmet (top impact) as outlined in ANSI Z89.1 1997, Class C, E and G (formerly Class B and A).

RAIN SUIT

Our tough rain suit is made of .35 mm PVC on polyester broadloom fabric. It is one of the most popular garments in the industry. Very versatile three piece suit, good for outdoor and indoor use. Popular with the construction industry and municipalities.
SAFETY EYEWEAR
Spectacles      Sunglasses      Goggles

SOUND CONTROL
Ear Muffs
Ear Plugs & Bands

GLOVES
Leather      Cotton
Coated      Disposable
Unsupported      Specialty
Skin Protection
When you think of rubber over-shoes most people think of low quality rubber boots that you need to stomp your feet into just to get them on.

Throw the stereo-type out the window and try a pair of Treds Over-the-Shoe Rubber Boots! Made in the USA from super tough and stretchy rubber, Treds will easily become your go-to waterproof overshoes.
Carhartt clothing sets industry standards for quality, toughness and durability. It still leads the way in comfort. It still protects like no other ever has. From coats to jackets, bibs to overalls... if the apparel carries the name Carhartt, the performance will be legendary.

*Original Equipment for the American Worker.*

- **Flame Resistant**
- **Arctic Coat**
- **Sweatshirts** - Heavyweight crew, Hooded pullover, Zip-front hooded
- **Duck Bib Overall**
- **Duck Coverall**
- **Jeans** - Denim Traditional Fit, Western Cut, Loose Fit, Relaxed Fit, Work Dungaree

*Available at the Apollo and Pulaski location*
Timberland PRO™ series work boots and apparel are created exclusively for working professionals who need the best comfort and protection on the job. Rugged outside and comfortable inside, our work boots and shoes are designed to stand up to the most rigorous worksite demands and provide protection against common hazards. And our new Timberland PRO™ series apparel is made with advanced technical fabrics and innovative designs to provide rugged work gear that’s both comfortable and keeps you well protected in any weather.

**Available at the Apollo and Pulaski location**

For our work boots, it’s things like the shock-diffusion plate to reduce leg fatigue. And the contoured sock liner for added arch support. Or the shock absorbing midsole for maximum comfort. And everything’s constructed on top of Timberland PRO™ rubber that’s specially engineered to be slip-resistant, abrasion-resistant and oil-resistant for better traction. Simply put, they’re made to work.
Muck Boot

The new MUCK LEATHER™ line, as with all the boots in The Original Muck Boot Company™ family, are engineered for comfort and durability. Unique comfort features have been applied in the MUCK LEATHER™ line – breathable Airmesh™ lining, 100% waterproof, Gel-Core™ sub-sole cushioning, and contour-molded polyurethane footbed that anatomically fits the shape of the bottom of the foot. All designed to keep feet dry, cool enough, warm enough and with just the right amount of support.
CARNIE CAP

WORKING AROUND REBAR JUST GOT SAFER

The Carnie Cap System is superior to any other rebar impalement protection available today. Unlike traditional rebar caps—which provide little or no impalement protection—the Carnie Cap System, when used properly, will withstand a 250 pound weight dropped from 10 feet without the rebar protruding.

The Carnie Cap is also less expensive than troughs. In fact, only two Carnie Caps are needed per each eight foot section. Plus, by eliminating injuries, installation time and inventory overhead, Carnie Caps not only protect workers, they can protect a company’s bottom line.

A CROWNING ACHIEVEMENT IN SAFETY

- Meets CAL-OSHA Construction Safety Orders Section #1712 on impalement protection from concrete reinforcing bars.
- Meets OSHA standards for withstanding a 250 pound weight dropped from 7’6” without the rebar breaking through.
- When force is applied to the Carnie Cap system, the impact is distributed evenly over the entire length of the lumber.

CAP DANGEROUS REBAR ENDS

Available for use on 2” x 4”s and 2” x 6”s.
Fits rebar sizes #3-#9 and #5-#18.

APPLICATIONS

- Works in vertical, incline and horizontal applications.
- Uses only 2 caps per each 8 foot span.
  (in California, double the thickness of the lumber and space no greater than 4 feet apart.)
- Enables contractors to more efficiently use concrete blankets by utilizing the lumber as protective support so blankets don’t become torn.
### Impalement-Protection Safety Cap DISC System

**Federal OSHA 1926.701(b) Mandates:** “All protruding reinforcing steel...shall be guarded to eliminate the hazard of impalement.”

- Approved by California OSHA #C1718AG
- Complies with Federal OSHA 701 (b).
- Federal OSHA has ruled that if cover is in compliance with Cal OSHA, then it conforms to Fed. 701 (b).
- Made of engineered high-impact plastic.
- 4x4 top surface area aids in protection.
- Fits a range of diameters.
- No exposed steel parts.
- Inspection hole to insure metal insert in place.
- Fits Rebar sizes #3 to #7.

### ECON-O-GUARD

**Protective Caps for Rebar, Pipe and Bolts**

Exposed rebar, threaded rod, shebolts, pipe, etc., create potential hazards which can result in employee injury and lost time. Use Econ-O-Guard™ to minimize possible accidents-protect both employees and equipment. EconoGuards are designed and intended as a visual warning of a possible protruding hazard. EconoGuards are not intended for use as fall or penetration protection. Since the use of the Econoguard is beyond the knowledge and control of Deslauriers, Inc., the proper use of this product is the responsibility of the user. The user should be familiar with appropriate codes and safety regulations.
Republic Door has a long history as one of the nation's leading manufacturers of commercial steel doors and frames. Republic doors and frames are marketed in all 50 states and several foreign countries through a network of stocking distributors and a nationwide network of 24 company-owned Service Centers. Windsor Republic Service Centers provide a unique opportunity for customers to have access to a complete line of commercial hollow metal doors, frames and hardware and a complete line of commercial and residential garage doors, electric operators and related accessories...all under one roof. Windsor Republic Doors is committed not only to providing the best doors in the industry but also to supporting its customers with dependable delivery and exceptional service.

For more information - [http://www.republicdoor.com](http://www.republicdoor.com)

for information on:

* Standard Door Specifications
* Labeled Doors
* Anchors
* SE/SH Series Sticks

Republic doors and frames are marketed in all 50 states. The George L. Wilson of West Virginia provides a unique opportunity for customers to have access to a complete line of commercial hollow metal doors, frames and hardware.

Republic offers a complete line of masonry single return frames. Frames are available in 16, 14 or 12 gage steel; cold rolled or A60 galvannealed. Frames (16 and 14 gage) are manufactured with die-cut, mitered, tab and slot design for easier assembly and interlocking corners. Our frames are available as knock down units or welded. We offer a wide variety of profiles, face dimensions and configurations to fit your construction need. Republic's masonry frames are manufactured for various wall conditions, from new construction to existing. Frames are constructed to conform to SDI standard, ANSI A250.8.

Your manufacturing source for the highest quality products, the industry's shortest lead times, and a large distribution base to assure your satisfaction.
Mohawk offers complete product line of commercial doors.

- 5 ply Architectural Series & Commercial Series
- Fire Rated
- Moulded Panel and More
- Full product line of “Green” products
- DigiTech - a new technology in door finishing
- Factory Glazing
- Factory Installed Mirror

Our commercial doors are as available with many options, which include:

- **Factory prefinishing**
- **Factory machining**
- **Matching vertical edges**
- **Type 1 glue**
- **Lifetime warranties**

**Masterpiece**

* a cost effective alternative to Stile & Rail doors

- Available in two, three, and four panel layouts
- Available in a variety of wood species or painted colors
- Finish conforms to AWI 1500 TR-6 or OP-6 specifications
- Lead time - please consult factory
- Available in fire ratings up to 60 minutes
- Priced at a fraction of a true stile and rail door
BAR-CO
ACCESS DOORS

Established in 1975, Barco has a proud history of supplying metal access doors to the construction industry. Used as a means to inspect, service, and gain access to electrical, plumbing, HVAC, and mechanical connections etc., BARCO doors are designed for installation in most types of wall and ceiling construction including acoustical tile, plaster, drywall, ceramic tile etc. Popular sizes are in stock for immediate shipment, and custom orders are always welcome. Raw materials are maintained so that we can meet your delivery requirements. Steel frames and door material meet or exceed the requirements of ASTM - A366, cold rolled steel. Doors are shipped with one shop coat of gray primer, or prime painted per your specifications.

UL, and Warnock Hersey listed fire rated doors are available. Non fire rated doors have several locking and hinge options.

- Continuous vertical door strikes
- Heavy gauge frame hooks
- Full-flanged, channel edged door
- Stainless steel recessed handle and quiet latching system
- Double-channel quiet lock bar
- Flush front design Full loop, 2” 5-knuckle hinges welded to frame, double-riveted to door
- Double lapped rear vertical corners in body
Republic’s Quiet Locker - The Best Value

Republic’s Quiet Locker, the most popular choice for schools, meets the basic needs of the school environment: noise-free operation and recessed handle for a flat door surface. Its combination of solid construction, contemporary design and a competitive price makes the Quiet Locker the best value on the market today.

Republic lockers have proven to install more easily and trouble-free than any other system on the market. Driven by the need for security, safety, appearance and durability, we’ve been refining their design for nearly a century. Today, Republic lockers are available in a variety of configurations to suit corridor, athletic room and special applications. Look at our Recommendations Table (available on the web) to see what Republic lockers will best meet your needs.

All Republic locker bodies are fabricated from premium-quality cold-rolled steel. They feature reliable latching systems and a premium finish. Tops, bottoms and shelves are stiffened by flanges on all four sides. Back and upright vertical rear corners feature a double-lapped design for extra strength. Choose from 25 standard colors and hundreds of size and style combinations to suit your needs precisely.

Qwik-Ship (QSL) Lockers are available for immediate shipment.
DORMA
Architectural Hardware

Knowledgeable and responsive customer service. Products that offer the highest levels of safety and security. Quality Solutions. These are the driving forces behind DORMA Architectural Hardware.

Built on a tradition of innovation and responsiveness, DORMA Architectural Hardware markets a wide range of state-of-the-art and aesthetically-pleasing commercial door hardware.

DORMA Architectural Hardware delivers the next generation of door system technology, including surface closers, concealed closers, locks and key systems, exit devices, low energy operators, coordinator systems, fire/life safety, overhead stops/holders, access control, and pivots.

DORMA By Choice™
TOILET PARTITIONS
General Partitions Manufacturing offers a full line of highly durable toilet partitions built with reliability in mind. We not only offer one of the finest quality toilet partitions in the industry but we stand behind it with over 50 years of manufacturing experience allowing us built to your custom specifications and ship on time.

SHOWER/DRESSING COMPARTMENTS
Our experienced engineering department will work closely with you to design your shower and dressing areas. We will recommend the right design for your application, helping to select the material that will withstand the harsh moisture, while still meeting your budget.

URINAL SCREENS
Urinal screens are manufactured to the same quality standards as the toilet partition themselves, in many different styles and finishes. As an item that receives much misuse and abuse, it is important to specify the design, and material that will stand up to the environmental conditions of the project. As with the toilet partitions, and showers, we will be help with determining the best option for your application, and budget.

SOLID PLASTIC HDP LOCKERS
General Partitions solid plastic lockers are constructed of a one-piece HDP body with no mechanical fasteners or hardware. The locker frame is attached using full length dado joints secured by continuous plastic welds. The continuous spring-loaded latch mechanism provides a vertical lift that is designed to accept a padlock. The latch mechanism is attached to the length of the door, providing a continuous, secure latch.
PIPE RAILING

Superior Aluminum Non-welded Series 500 Pipe Railing is especially designed to utilize all the advantages of aluminum, where strength, durability and no-paint maintenance is a key factor. Highest quality aluminum extrusions and castings are used with concealed fasteners, offering a smooth finish, making it the finest contemporary design available on the market today.

Post and top rails are assembled to run in continuous lengths, this results in a system that is stronger than one with a cast tee and cross connections and provides a continuous smooth top rail surface; pipe rail assemblies up to 24 feet can be shipped factory assembled or knocked down for reassembly.

All rails, posts and pickets shall be formed from 6063-T6 aluminum of 1-1/2 Schedule 40 pipe size, except where there are formed elbows, whereby, 6063-T4 is used. All railing accessories shall be cast from ANSI 713 alloy. All fasteners used in the system shall be aluminum or stainless steel.

Workmanship
All pipe cuts shall be square and accurate for minimum joint-gap. Cuts shall be clean and free of chamfer, from deburring, nicks and burrs. Holes shall be drilled the proper size for a tight flush fit of rivets and screws. All posts grouted in concrete must have one 1/4” diameter weep hole, 1/2” above post collar, in the plane of the rail.

Rigidity
Post spacing shall not exceed 6’ 0” center-to-center. All posts will be a single unspliced length between posts. All top rails shall be continuous whenever possible. All fasteners shall be tightened so that completed railing is rigid and free of play at joints and component attachments.

Scope of Work
Superior Aluminum Series 500 railing meets federal safety requirements as determined by an independent testing laboratory. Test results available upon request.
WEST VIRGINIA LOCATION
FEATURES:

WILSON STEEL WORKS

Wilson Steel Works specializes in Fabricating # 3 through # 9 Grade 60 rebar complying with steel requirement ASTM A615 / A615M-09 certification cut, bent and tagged.
Typical Rebar Bends
The highest quality laminated copper flashing on the market today. This unique, time-proven flashing is available in 2, 3, 5 or 7 oz. per square foot to meet all your specification needs. Two layers of dense glass fabric and a special blended asphalt are laminated to the copper core to produce greater tensile strength and improved puncture resistance. This composition of copper, glass fabric and asphalt will ensure a permanent bond in the mortar joint and protection from moisture. Size: 2, 3, 5 or 7 oz. per square foot. Rolls 36” wide x 25’ long. Will slit to multiple widths.

**Cop-R-Cote**
A full single sheet of 2, 3, 5 or 7 oz. copper coated on both sides with a special plasticized asphalt compound weighing not less than 6 ozs. per sq. ft. Features a permanent high quality laminated thin-wall flashing consisting of three (3) layers of time proven waterproofing material combined into a single sheet. It is flexible and is easily formed by hand.

**Cop-R-Kraft**
A full single sheet of 1, 2, or 3 oz. copper bonded on one side to heavy, waterproofed creped kraft paper (3 oz. is reinforced with heavy fibers to meet government requirements). Features a permanent, economical laminated thru-wall flashing consisting of three (3) layers of time proven waterproofing materials combined under heat and pressure into a single sheet. It is flexible and is easily formed by hand at the jobsite.

**Cop-R-Kraft Duplex**
A full single sheet of 1, 2, 3, or 5 oz. copper bonded on both sides by asphalt to heavy waterproofed creped kraft paper (3 and 5 oz. weights reinforced with heavy fibers). Features a permanent, economical quality laminated thru-wall flashing consisting of five (5) layers of time proven waterproofing materials combined under heat and pressure into a single sheet. It is flexible and is easily formed by hand at the jobsite.
**Water Sealant Anti-Graffitiant**

A Superior Alternative to Silanes and Siloxanes

**Differences**

- Capable of bridging cracks and structural defects up to 1/32” (400% elongation)
- Can seal even the most porous, lightweight concrete block
- Inorganic, therefore it lasts longer than silanes/siloxanes that are organic
- Effectively seals natural stone such as limestone and sandstone

**Similarities**

- Penetrating
- Breathable . . . High Perm Rate
- Transparent - Dries to a clear, flat finish . . .
- May slightly enhance some substrates
- Reduces Chloride Ion Penetration
- Prevents freeze/thaw damage
- Eliminates the occurrence of efflorescence, mold and mildew caused by water absorption
- VOC Compliant

**Available in 3 Formulations**

**Regular Strength**
Brick, Concrete, Granite and other dense stone

**Extra Strength**
Very porous Brick and Concrete, stucco, adobe, Sandstone, Limestone, heavyweight block

**Super Strength**
Split face, fluted, and smooth lightweight block; expanded shale and other extremely porous block

**Coverage Rates**

**One-coat application for waterproofing**

<table>
<thead>
<tr>
<th>Material</th>
<th>Coverage Rate (sq ft/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick</td>
<td>125-150</td>
</tr>
<tr>
<td>Concrete</td>
<td>100-200</td>
</tr>
<tr>
<td>Stone</td>
<td>100-200</td>
</tr>
<tr>
<td>Block</td>
<td>80-120</td>
</tr>
</tbody>
</table>

**Two-coat application for graffiti protection**

<table>
<thead>
<tr>
<th>Formulation</th>
<th>Coverage Rate (sq ft/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Coat:</td>
<td></td>
</tr>
<tr>
<td>Super Strength</td>
<td>60-125</td>
</tr>
<tr>
<td>Second Coat:</td>
<td></td>
</tr>
<tr>
<td>Super or Extra</td>
<td>100-130</td>
</tr>
</tbody>
</table>

**Professional Water Sealant & Anti-Graffitiant**

As an inorganic sealant, it is easily applied and bonds naturally to a wide variety of porous building surfaces . . . adding years of weatherproofing protection to new or existing structures.
DRYVIT SYSTEMS

Exterior Wall Insulation and Finish System

Insulation Board
A composite material that's environmentally safe, thermally efficient (R-4 per inch) and easy to size and shape. The insulation board is adhered to approved substrates with high performance Dryvit adhesives.

Adhesives
An acrylic adhesive is used to adhere the insulation board to the approved substrate.

Reinforced Base Coats
For strength and durability, a glass fiber mesh is embedded into the base coat on the face of the insulation board. The mesh is available in five impact-resistant strengths to meet the requirements of your building. For all ground floor and high-trafficked area, a minimum 15 oz. mesh is recommended in addition to the standard 4.3 oz mesh.

Dryvit Finishes
Dryvit finishes are highly regarded for their beauty and durability. A full spectrum of standard and custom colors are available. And a wide array of textures ranging from fine grain, multicolored, quartz aggregate finishes. Dryvit finishes are weather resistant and unmatched in quality due to their DPR (Dirt Pickup Resistant) chemistry.

The Outsulation System is designed as a barrier wall system, and is detailed to prevent water from entering the System. Specifications should be followed and proper details adhered to, in order to prevent water intrusion, resulting in possible damage to the System or other building elements. Care should be taken to insure that all building elements, including without limitations, roof designs, windows, flashings, sealants, etc., are compatible with this system.
140EX

Thrace-LINQ® 140EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® 140EX meets AASHTO M288-06 Class 3 standards.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST PROCEDURE</th>
<th>METRIC MARV</th>
<th>ENGLISH MARV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab Tensile Strength</td>
<td>ASTM-D4632</td>
<td>534</td>
<td>N</td>
</tr>
<tr>
<td>Grab Tensile Elongation</td>
<td>ASTM-D4632</td>
<td>50</td>
<td>%</td>
</tr>
<tr>
<td>Trapezoid Tear</td>
<td>ASTM-D4533</td>
<td>222</td>
<td>N</td>
</tr>
<tr>
<td>CBR Puncture</td>
<td>ASTM-D6241</td>
<td>1512</td>
<td>N</td>
</tr>
<tr>
<td>Permeability</td>
<td>ASTM-D4491</td>
<td>1.8</td>
<td>sec^{-1}</td>
</tr>
<tr>
<td>WaterFlow Rate</td>
<td>ASTM-D4491</td>
<td>5297</td>
<td>l/min/m²</td>
</tr>
<tr>
<td>Apparent Opening Size</td>
<td>ASTM-D751</td>
<td>0.212</td>
<td>mm</td>
</tr>
<tr>
<td>UV Stability @ 500 hrs</td>
<td>ASTM-D4355</td>
<td>70</td>
<td>%</td>
</tr>
</tbody>
</table>

NOTE:
- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

150EX

Thrace-LINQ® 150EX is a nonwoven geotextile fabric manufactured from Polypropylene staple fiber. The fibers are randomly oriented and form a cohesive/stabilized needlepunched fabric, for use in many applications. This fabric has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® 150EX meets AASHTO M288-06 Class 2 standards.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST PROCEDURE</th>
<th>METRIC MARV</th>
<th>ENGLISH MARV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab Tensile Strength</td>
<td>ASTM-D4632</td>
<td>712</td>
<td>N</td>
</tr>
<tr>
<td>Grab Tensile Elongation</td>
<td>ASTM-D4632</td>
<td>50</td>
<td>%</td>
</tr>
<tr>
<td>Trapezoid Tear</td>
<td>ASTM-D4533</td>
<td>267</td>
<td>N</td>
</tr>
<tr>
<td>CBR Puncture</td>
<td>ASTM-D6241</td>
<td>1824</td>
<td>N</td>
</tr>
<tr>
<td>Permeability</td>
<td>ASTM-D4491</td>
<td>1.5</td>
<td>sec^{-1}</td>
</tr>
<tr>
<td>WaterFlow Rate</td>
<td>ASTM-D4491</td>
<td>4482</td>
<td>l/min/m²</td>
</tr>
<tr>
<td>Apparent Opening Size</td>
<td>ASTM-D751</td>
<td>0.180</td>
<td>mm</td>
</tr>
<tr>
<td>UV Stability @ 500 hrs</td>
<td>ASTM-D4355</td>
<td>70</td>
<td>%</td>
</tr>
</tbody>
</table>

NOTE:
- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.
GTF200

Thrace-LINQ® GTF-200 is woven in a stable weave pattern; using high-tenacity polypropylene slit film yarns. This geotextile has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® GTF-200 meets AASHTO M288-06 Class 3 standards.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST PROCEDURE</th>
<th>METRIC</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MARV</td>
<td>MARV</td>
</tr>
<tr>
<td>Grab Tensile Strength</td>
<td>ASTM-D4632</td>
<td>890</td>
<td>200 lbs</td>
</tr>
<tr>
<td>Grab Tensile Elongation</td>
<td>ASTM-D4632</td>
<td>15 / 15%</td>
<td>15 / 15%</td>
</tr>
<tr>
<td>Trapezoid Tear</td>
<td>ASTM-D4533</td>
<td>334 / 334</td>
<td>75 / 75 lbs</td>
</tr>
<tr>
<td>CBR Puncture</td>
<td>ASTM-D6241</td>
<td>3114</td>
<td>700 lbs</td>
</tr>
<tr>
<td>Permeability</td>
<td>ASTM-D4491</td>
<td>0.08 sec⁻¹</td>
<td>0.08 sec⁻¹</td>
</tr>
<tr>
<td>WaterFlow Rate</td>
<td>ASTM-D4491</td>
<td>244 l/min/㎡</td>
<td>6 gpm/ft²</td>
</tr>
<tr>
<td>Apparent Opening Size (AOS)</td>
<td>ASTM-D4751</td>
<td>0.425 mm</td>
<td>40 USSieve</td>
</tr>
<tr>
<td>UV Stability @ 500 hrs</td>
<td>ASTM-D4355</td>
<td>80 %</td>
<td>80 %</td>
</tr>
</tbody>
</table>

NOTE:
- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

GTF250

A woven in a stable weave pattern; using high-tenacity polypropylene slit film yarns. This geotextile has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Meets AASHTO M288-06 Class 2 standards.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST PROCEDURE</th>
<th>METRIC</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MARV</td>
<td>MARV</td>
</tr>
<tr>
<td>Grab Tensile Strength</td>
<td>ASTM-D4632</td>
<td>1112</td>
<td>250 lbs</td>
</tr>
<tr>
<td>Grab Tensile Elongation</td>
<td>ASTM-D4632</td>
<td>15 / 15%</td>
<td>15 / 15%</td>
</tr>
<tr>
<td>Trapezoid Tear</td>
<td>ASTM-D4533</td>
<td>400 / 400</td>
<td>90 / 90 lbs</td>
</tr>
<tr>
<td>CBR Puncture</td>
<td>ASTM-D6241</td>
<td>4003</td>
<td>900 lbs</td>
</tr>
<tr>
<td>Permeability</td>
<td>ASTM-D4491</td>
<td>0.05 sec⁻¹</td>
<td>0.05 sec⁻¹</td>
</tr>
<tr>
<td>WaterFlow Rate</td>
<td>ASTM-D4491</td>
<td>163 l/min/㎡</td>
<td>4 gpm/ft²</td>
</tr>
<tr>
<td>Apparent Opening Size (AOS)</td>
<td>ASTM-D4751</td>
<td>0.425 mm</td>
<td>40 USSieve</td>
</tr>
<tr>
<td>UV Stability @ 500 hrs</td>
<td>ASTM-D4355</td>
<td>80 %</td>
<td>80 %</td>
</tr>
</tbody>
</table>

NOTE:
- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.
SUPER DIAMOND CLEAR

High Solids, Non-yellowing Curing And Sealing Compound

SUPER DIAMOND CLEAR is a solvent-based curing and sealing compound specially designed to cure new concrete, assuring proper cement hydration and strength gain, while providing a non-yellowing seal to protect and enhance the appearance of concrete. Super Diamond Clear is particularly suited for curing and sealing exterior architectural concrete where membrane yellowing is undesirable. Super Diamond Clear can be tinted with Euclid Universal Color Packs, which are available in 33 standard colors.

PRIMARY APPLICATIONS:
- Driveways & exterior pavements
- Walls and columns
- Exposed aggregate
- Dry shake floors
- Curing & sealing decorative concrete

FEATURES / BENEFITS:
- Helps promote development of concrete strength & durability through proper curing
- Enhances color and provides gloss to the surface
- Will not yellow under ultraviolet exposure
- Can be tinted with Euclid Universal Color Packs to even out variegated concrete surfaces

TECHNICAL INFORMATION:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkali resistance</td>
<td>48 hour exposure, excellent</td>
</tr>
<tr>
<td>Solvent resistance</td>
<td>Minimal</td>
</tr>
<tr>
<td>Resistance to yellowing</td>
<td>Excellent</td>
</tr>
<tr>
<td>Solids content</td>
<td>&lt; 25%</td>
</tr>
<tr>
<td>Moisture loss (ASTM C 156)</td>
<td>&lt; 0.40 kg/m²</td>
</tr>
<tr>
<td>Drying time* @ 73°F, 50% RH</td>
<td>&lt; 2 hours</td>
</tr>
<tr>
<td>Recast</td>
<td>2 to 24 hours</td>
</tr>
<tr>
<td>Foot traffic</td>
<td>2 to 4 hours</td>
</tr>
<tr>
<td>Wheel traffic</td>
<td>6 to 10 hours</td>
</tr>
<tr>
<td>VOC content</td>
<td>650 g/L</td>
</tr>
<tr>
<td>Adhesion to concrete</td>
<td>Excellent</td>
</tr>
<tr>
<td>Adhesion of asphalt tile</td>
<td>Passes</td>
</tr>
</tbody>
</table>

* Low concrete or air temperature and/or high relative humidity will extend drying time.

Appearance: Super Diamond Clear is a clear liquid, that provides a clear, glossy film after drying. Super Diamond Clear will darken concrete, masonry, pavers, etc., giving these materials a “wet” look. Super Diamond Clear can also be tinted with Euclid Universal Color Packs (EUCCO Packs), which are available in 33 standard colors. See the EUCLID UNIVERAL COLOR CHART for available colors.

PACKAGING:
55 gal. drums, 5 gal. pails and 4/1 gal. units per case.

SPECIFICATIONS / COMPLIANCES:
- ASTM C 309, Type 1, Class A & B
- ASTM C 1315, Type 1, Class A
- AASHTO Specification M 148, Type 1, Class A & B
- USDA compliant

COVERAGE:

<table>
<thead>
<tr>
<th>Application</th>
<th>First Coat</th>
<th>Optional Second Coat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curing &amp; Sealing New Concrete</td>
<td>300 to 400</td>
<td>400 to 450</td>
</tr>
<tr>
<td>Sealing Cured Concrete</td>
<td>400 to 450</td>
<td>450 to 550</td>
</tr>
</tbody>
</table>

Coverage will vary from the above rates depending on surface porosity and texture.
MasterKure CC 250 SB
Formerly Kure-N-Seal 25 LV

Low-viscosity, transparent, solvent-based, modified acrylic curing, sealing and dustproofing compound.

MasterKure® CC 250 SB is a transparent, low-viscosity, 25% solids, VOC-compliant, solvent-based modified acrylic curing, sealing and dustproofing compound designed for easier application at cool temperatures. It complies with ASTM C 1315, Type I, Class A.

PRODUCT HIGHLIGHTS:
• Solvent-based for excellent blush/whitening resistance
• Ensures high curing efficiency allowing concrete to attain its full strength potential
• Reduces surface absorption and dusting of concrete for easier cleaning and maintenance
• Retains moisture in concrete to minimize shrinkage cracking
• VOC compliant for EPA
• Compatible with most carpet and tile adhesives
• Semi-gloss appearance so surfaces look newer and brighter
• Good UV resistance for retention of transparency
• Low viscosity to provide easier application at cool temperatures
• Abrasion resistant to withstand foot traffic and provide extended wear
• Sprayable with suitable pump-up canister sprayer

APPLICATIONS
• Interior and exterior
• Horizontal and vertical

SUBSTRATES
• Concrete
• Decorative concrete
• Exposed aggregate
• Brick

COLOR
Amber, dries clear

YIELD
Curing only: 200–400 ft²/gal.
2nd coat (dustproofing & sealing): 400–600 ft²/gal.
Recoating, dustproofing and sealing: 200–300 ft²/gal.

MasterKure CC 300SB
Coverage varies with application method, texture and porosity of surface.
**MasterKure CC 300SB**
Formerly Kure-N-Seal 30

Transparent, modified acrylic, solvent-based, high-gloss, curing, sealing and dust proofing compound.

MasterKure CC 300SB is a transparent, 30% solids, solvent-based, modified acrylic curing membrane. Apply it to damp or dry surfaces to provide a high-gloss finish. It complies with ASTM C 1315, Type 1, Class A.

**PRODUCT HIGHLIGHTS:**
- Solvent-based for excellent blush/whitening resistance
- VOC compliant for EPA and most regional jurisdictions
- Compatible with most carpet and tile adhesives
- Higher solids to yield a high-gloss finish
- Good UV resistance for retention of transparency
- Sprayable with suitable pump up canister sprayer
- Compliant with AIM regulations so it offers a range of temperature applications

**APPLICATIONS:**
- Offices
- Warehouses
- Commercial buildings
- Interior and exterior

**SUBSTRATES**
- Concrete
- Decorative concrete

**STORAGE**
Store in unopened containers in a clean, dry area between 35° & 85° F. Keep from freezing.

**COLOR**
Transparent

**YIELD**
Curing only: 200–400 ft²/gal.
2nd coat (dustproofing & sealing): 400–600 ft²/gal.

*Coverage varies with application method, texture and porosity of surface.*
SPARTACOTE® FLEX SB

Polyaspartic aliphatic polyurea sealer/finish concrete coating designed for both decorative and protective flooring applications. This high performance polyaspartic concrete coating material is applied in single or multiple coats by brush, roller, squeegee or broom of varying thicknesses to a variety of substrates including concrete and metal.

PRODUCT HIGHLIGHTS:
SPARTACOTE® FLEX SB polyaspartic concrete coatings offer installers several advantages, including: rapid cure rates and return to service, user-friendly working times and the ability to reach full cure in cold-climate environments. Owners of SPARTACOTE® FLEX SB polyaspartic coating systems enjoy long-lasting durability, optimal coating adhesion and UV stability.

SPARTACOTE® FLEX XT

Ultra-high performance, 92% solids polyaspartic concrete coating material designed for maximum chemical and abrasion resistance. Representing the very latest in polyaspartic coating technology, SPARTACOTE® FLEX XT™ is a green-friendly product with minimal odor and minimal VOCs (< 50 g/l). SPARTACOTE® FLEX XT™ is available in a clear as well as a pigmented version and is widely utilized as a performance top-coat over traditional resinous flooring systems.

PRODUCT HIGHLIGHTS:
- Green-friendly LEED eligible material and Low VOC Formula
- Low Odor
- Excellent Durability
- Extremely High Chemical and Stain Resistance
- One-Day installation with next-day return to service
- SPARTACOTE Grip™ traction additive
- Tolerant to 300º for incidental heat contact
- No Hot-tire pickup
- UV Resistant

SpartaFlex® One Fast Floor
Full Broadcast Chip/Quartz System

Clear Top Coat
Broadcast Medias
Clear Bed Coat
Pigmented Base Coat
Prepared Substrate
**SPARTACOTE® FLEX PURE**

Ultra high solids, two-part polyaspartic aliphatic polyurea sealer/finish concrete coating for protective flooring applications. This very low VOC product emits minimal application odor, making it ideal for indoor applications. Available in clear gloss and pigmented, the material is applied in single or multiple coats by broom, roller or squeegee.

**PRODUCT HIGHLIGHTS:**
- Green-friendly, very low VOC
- LEED eligible material
- One-Day installation with next-day return to service
- Excellent impact and wear resistance
- Good chemical & stain resistance
- SPARTACOTE Grip™ micro-media agents can be introduced for added traction
- No hot-tire pickup
- UV Resistant
- Low Temp CURE (35º Min)

**SPARTACOTE® POLYASPARTIC PIGMENTS**

SPARTACOTE® Polyaspartic Pigments are designed to be used exclusively with SPARTACOTE® SB, SPARTACOTE® XT™ and SPARTACOTE® PURE™ polyaspartic concrete coatings. Available in 14 standard colors, these materials are manufactured through a proprietary process in which raw pigments are ground and subsequently combined with the highest quality polyaspartic resins available. Once ready for use, these concentrated pigments are dispersed directly into short-filled part A pigment base.

**PRODUCT HIGHLIGHTS:**
- 14 standard colors including safety colors
- UV Stable; suitable for exterior applications
- Excellent color hide
- Superior color retention
- Easy to use on-site color dispersion
Muck® Boots are built to take on the toughest conditions. Our premium boots are made with the sole purpose of providing the most comfortable, high performance outdoor footwear on the market.

**Arctic Sport**

*Comfort and warmth for the most extreme outdoor conditions.*

- Stretch-fit topline binding snugs leg to keep warmth in and cold out
- 5mm NEOPRENE bootie with four-way stretch nylon, 100% waterproof, lightweight and flexible
- Fleece lining
- 2mm thermal foam underlay added to the instep area for additional warmth
- EVA molded midsole with contoured footbed
- MS-1 molded outsole is rugged, aggressive and durable for maximum protection and stability
- Height 17”

**Chore Boot**

**Non Safety Toe**

The Muck Chore has helped hundreds of thousands of landowners and construction workers stay dry and comfortable for more than a decade. All Chore boots are rugged and built to last.

**Chore Boot**

**Safety Toe**

Our bestselling Chore Series provides dry, comfortable footwear that’s built to handle the toughest job.
MARSHALLTOWN TOOLS

Concrete tools from MARSHALLTOWN can help make your concrete construction or repair project easier. We carry a full lineup of concrete Bull Floats, Hand Floats, Hand Edgers, Brooms, Finishing Trowels, Fresno Trowels, Brackets and Adapters.

FINISHING TROWELS
We offer high quality concrete finishing blue steel trowels, rounded trowels, fully rounded finishing trowels and more.

HAND EDGERS
Blades made with blue steel, stainless steel and other options that can help you with your concrete jobs.

BULL FLOATS
“Broken-in” Magnesium Bull Float
Laminated Wood Bull Float
Magnesium Bull Floats, etc.

HAND FLOATS
“The Hog” Magnesium
Beveled End
Rounded End, etc.

BROOMS
Aluminum Backed Horse Hair
Finish Strip Concrete Brooms
Floor Brooms, Handle Brushes, etc.

FRESNO TROWELS, BRACKETS AND ADAPTERS
Blue Gliders
Brackets and Adapters
Bronze Fresno Groover Attachments
Gunite Fresno Trowel
Multi Groove Fresno

Blue Glider