

# McKinnon Materials, Inc.

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## STONE BOND EPOXY with Cold Weather Resin

<b>PHYSICAL PROPERTIES:</b>																
<u>Composition:</u>	Two part epoxy system for use as a binder with Epoxy Stone, or as a sealer over existing River Rock for applications of Stone Bond Epoxy in cold weather, or high UV concentrations, McKinnon Materials has developed a specific stone bond epoxy for the above applications.															
<u>Solids Content:</u>	100% solids															
<u>Mix Ratio:</u>	3 to 1															
<u>Viscosity:</u>	@ 77 degrees F 1100 (CPS)															
<u>Pot Life:</u>	@ 77 degrees F approximately 15 minutes															
<b><u>General Information:</u></b>																
<u>Surface Preparation:</u>	All surfaces must be dry, clean and free from grease, oil or foreign matter. A thorough pressure washing and cleaning is recommended.															
<u>Coverage:</u>	McKinnon Stone Bond Epoxy coverage depends on the application technique and substrate porosity. Most applications will be 150 sq ft for resealing and when mixed with stone aggregate (3-50lb bags to 1 gallon Stone Bond Epoxy=1 batch)approximately 35 sq ft per batch for 5/16 and 40 sq ft for 3/16 and mini.															
<u>Drying Time:</u>	Tack free in 4 hours at 77 degrees F. (First 1 hour most critical)															
<u>Clean Up:</u>	Tools and mixing equipment should be thoroughly cleaned prior to gelation of the product. Typical solvents such as xylene, trowel slick, and acetone may be used for cleaning.															
<u>Performance Properties:</u>	<table> <tr> <td>Tensile Elongation</td> <td>(ASTM D-638)</td> <td>1-30%</td> </tr> <tr> <td>Hardness Shore D</td> <td></td> <td>75</td> </tr> <tr> <td>Tensile Strength</td> <td>(ASTM D-638)</td> <td>4000-10,000</td> </tr> <tr> <td>PSI</td> <td></td> <td></td> </tr> <tr> <td>Heptone Resistance</td> <td>(ASTM D-543)</td> <td>None</td> </tr> </table>	Tensile Elongation	(ASTM D-638)	1-30%	Hardness Shore D		75	Tensile Strength	(ASTM D-638)	4000-10,000	PSI			Heptone Resistance	(ASTM D-543)	None
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<u>Shelf Life:</u>	12 Months (Unmixed). <b>Color:</b> Clear <b>Flash Point:</b> <b>Cure</b> – will burn at 200°F <b>Resin</b> – no response															
<u>Mixing Instructions:</u>	<p>Stone Bond Epoxy is a three to one ratio. Important: DO NOT VARY FROM THIS MIX RATIO.</p> <ol style="list-style-type: none"> <li>1. Place <b>one</b> quart of cure in container, add <b>three</b> quarts of resin. (USE SEPARATE MEASURING VESSELS FOR EACH COMPONENT.)</li> <li>2. Mix for two minutes with a flat stirrer, scraping the sides to ensure proper mix. Let stand while loading mixer.</li> <li>3. Pour into mixer, 150-180 pounds of stone (depending on the size of stone).</li> <li>4. Run mixer approximately three minutes until stone is thoroughly saturated with Stone Bond Epoxy.</li> </ol>															

<u>Application Instructions:</u>	<p>Refer to batch mix sheet for correct ratio of aggregate to epoxy.</p> <ol style="list-style-type: none"> <li>1. Remove the mix to the wheelbarrow and dump into place.</li> <li>2. Immediately spread with rake to the correct level.</li> <li>3. Trowel smooth and tight. <b>IMPORTANT:</b> loosely troweled stone will cause a weak system. Use Trowel Slick as a trowel lube and AVOID excessive amounts on trowels or deck.</li> </ol>
<u>Cleaning:</u>	<p>Tools may be cleaned with soap and water immediately after application. NOTE: If tools are not cleaned within one half hour after being used, it will be virtually impossible to remove the Stone Bond Epoxy from your tools.</p>
<u>Recommended Thickness:</u>	<p>Recommended thickness for the river rock epoxy surface is: ½ inch thick for pool decks, patios, and walkways. For driveways, the river rock should be ¾ inch thick.</p>
<u>Important Note:</u>	<p>For use in temperatures below 60°F. Using this product in temperatures above 60 degrees F will greatly increase rate of cure.  <b>WHEN USING BELOW 60 DEGREES F WE RECOMMEND PRIMING WITH EPOXY PRIOR TO INSTALLATION.</b></p>
	<p><b><u>Safety</u></b></p> <p>Material Safety Data sheets are available from McKinnon Materials and should be consulted prior to use of the product. This product is intended for use by professionals only. Keep away from children and those not trained in the use and potential hazards involved.</p> <p>Workers should wear gloves and goggles when mixing or applying product. Clean up with soap and warm water. Be sure to follow all label and MSDS cautions.</p>
	<p><b><u>Warranty</u></b></p> <p>McKinnon Materials warrants its products to conform to its manufacturing standards. McKinnon Materials will replace or refund the purchase price of non-conforming product at the seller's option; such remedy being exclusive of all others and sole remedy available to the buyer. Buyer hereby expressly waives claim to additional damages. Any claim under this warranty must be made in writing within 7 days of discovery of non-compliance and no later than two years from the date of delivery of product. No representative, distributor or applicator of these products is authorized to modify product, product data or warranty.</p>
	<p><b><u>Important Notice</u></b></p> <p>These products are sold subject only to the express warranties contained herein. There are no other warranties by McKinnon Materials of any nature whatsoever expressed or implied. Including any warranties of merchantability or fitness for a particular purpose in connection with this product. Buyer agrees that seller assumes no liability for remote or consequential damages of any kind which result from the use or misuse of the product. Information contained herein is based on data believed to be reliable; however it is the buyer's responsibility to satisfy itself of the product for a particular purpose. Material safety data sheets are available from McKinnon Materials and should be consulted prior to use of the product. This product is intended for use by professionals only. Keep away from children and those not trained in the use of potentially hazardous materials.</p>

## **BASIC INSTALLATION**

- I. Tools
  - A. Cement Mixer (3 cu.ft. capacity)
  - B. Wheelbarrow (s)
  - C. Iron-tooth rake to spread rock to approximate thickness or a gauged rake.
  - D. Trowel (for finishing of product)
  - E. Propane Torch (to remove any moisture)
  - F. Hammers
  - G. Chipping Gun (plane down concrete at thresholds)
  - H. Tapcon Drill and Tool
  
- II. Forming Materials
  - A. Forming Stakes
  - B. 1" x \_\_\_\_ (wood forms) for over pours and steps.
  - C. Cantilever forms (pool edges).
  - D. Form Release i.e. Wax (to keep product from sticking to forms)
  - E. Tapcon Screws.
  
- III. PREPARATION FOR DECK
  - A. Must be clean and dry
  - B. Follow existing expansion joints accordingly
  - C. Remove spoiled or flaking concrete
  - D. Build up or channel low lying areas for necessary drainage
  - E. Asphalt or wood surfaces must have coat of epoxy applied prior to installation of river rock
  
- IV. FORMING
  - A. Wrap product around edges of deck that can be seen.
  - B. Apply light coat of epoxy to vertical edge of substrate.

### **FORMING PROCEDURES:**

Place forming stakes against edge of vertical substrate; this will space out from existing edge allowing product to fill in void between existing edge and form. Place pre-waxed form against stakes and install forming stakes to hold form in place.

### **FOR STEPS:**

Follow above procedure except fasten form with tapcon or concrete nails. While installing river rock, remove spacing stakes as the river rock fills voids. Trowel top to smooth finish and level edge.

### **FORMING OF CANTILEVER EDGE:**

Place a row of duct tape on pool tile. Top edge of tape should follow top edge of pool tile. Apply double face tape to foam then extender to the opposite side of the tape. Apply form adhesive to foam backing and glue backing to extender. Install concrete nails in concrete approximately one foot from edge of pool and space nails about every two feet around pool. If pool has straight edges use strips of 1x2 wood. If pool has curved edges, use strips of 2" masonite. Drill holes through wood backing. Place above mentioned backing strips against foam backing, pull tight and tie wire to nail.

After river rock is installed and hard, remove forms and cut tie wires even with rock edges. River rock dace needs to be ground slightly to smooth edge. After grinding and dust has been removed, apply light coat of epoxy to surface that has been ground.

V. MIXING OF MATERIAL

- A. Epoxy has a set mix ratio (do not vary). Mix three (3) equal parts resin to one (1) equal part of cure. Mix vigorously for at least two (2) minutes.
- B. Place correct poundage of desired pebble in cement mixer and add mixed epoxy.
- C. Let epoxy and stone mix until all stones have been covered with epoxy.

VI. FINISHING THE PRODUCT

- A. Place river rock at place of installation
- B. Spread evenly with rake
- C. Trowel to a smooth finish. In order to obtain a smooth finish, trowel must be occasionally cleaned with a proper solvent (Xylene, Trowel Slick, etc)

FINISHED PRODUCT SHOULD NOT BE WALKED ON UNTIL THE NEXT DAY!!!

CAUTION: Product should not be installed when temperature will not rise above 60°F. On such days, cold weather resin should be used.

BATCH MIXES:

NAME	BAGS	LBS	EPOXY	THICKNESS
Mocha Blend 3/16	3	150	1 gal	1/2 "
Mocha Blend 5/16	3	150	1 gal	1/2 "
Apache	3	150	1 gal	1/2 "
Coral 1/4 X 1/8	3	150	1 gal	1/2 "
Black Pearl	3	150	1 gal	3/32 X 3/16"
Dark Brown 3/16	3	150	1 gal	1/2 "
Dark Brown 5/16	3	150	1 gal	1/2 "
Multi-Colored Flint	1.5	150	1 gal	1/2 "
Pearl or Mini Pearl	3	150	1 gal	1/8 X 1/4 "
Texas Rainbow 5/16	3	150	1 gal	1/2 "
Grey Blend	3	150	1 gal	5/16" minus
Oklahoma Rainbow	3	150	1 gal	5/16" minus

Razorback Red	3	150	1 gal	3/32 X 3/16"
Cantina Pink	3	150	1 gal	1/4 X 1/8"
Black Diamond	1	100	1 gal	8/16 mesh
Tan (Golden Pearl)	3	150	1 gal	3/32 X 3/16"
Ozark Brown 3/16	3	150	1 gal	3/32 X 3/16"
Ozark Brown 5/16	3	150	1 gal	3/16 X 5/16"