



# EMECOLE, INC.

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## EMECOLE 302

### PRODUCT PRESENTATION

Emecole 302 is a 2-component, solvent free, moisture-insensitive, smooth-paste epoxy adhesive. It is a very rapid-curing sealer for more efficient pressure-injection grouting of cracks.

### USES

Use to seal cracks and to secure injection ports in structural concrete and wood trusses prior to pressure injection grouting.

### ADVANTAGES

New smooth-paste consistency for vertical, horizontal, and overhead crack sealing. Very rapid curing, even in thin film, for faster pressure-injection grouting. Injection may proceed 20 minutes after initial mixing. Easy mixing 1:1 = B:A volume ratio. **Not recommended for applications other than surface sealing.**

### COVERAGE

One gallon yields 231 cu inch of paste adhesive.

### PACKAGING

Dual cartridges, quart tubes, 5-gallon pails, 55-gallon drums.

### SURFACE PREPARATION

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, grease, curing compounds, impregnating waxes, foreign particles, and disintegrated materials.

### PREPARATION WORK

Concrete - Sandblast or use other approved mechanical means.

Steel - Sandblast to white-metal finish.

### APPLICATION

Apply a band, approximately ¼" thick, over the cracks to be injected and around injection ports. Allow sufficient time to cure before pressure injection.

**LIMITATIONS**

Minimum application temperature 40°F. Do not thin with solvents. Material is a vapor barrier after cure. Not recommended to seal cracks under hydrostatic pressure.

**TECHNICAL DATA**

**EMECOLE 302**

<b><u>PROPERTIES</u></b>	<b><u>PART A</u></b>	<b><u>PART B</u></b>	<b><u>MIXED</u></b>
Solids by Volume	100%	100%	-----
Color	White	Black	Grey
Shelf Life	1 year	1 year	-----
Weight by Gallon	16 lbs	16 lbs	16 lbs
Mix Ratio (Vol.)	-----	-----	1:1
Consistency	-----	-----	Smooth-paste adhesive
Pot Life: (3 oz)	-----	-----	4-6 minutes
Gel Time (5 mil)	-----	-----	20 minutes
Tack-Free Time	-----	-----	40°F 45 min., 73°F 20 min., 90°F 15 min.
Final Cure	-----	-----	24 hours
Viscosity	-----	-----	Non sag gel
Hardness (Shore)	-----	-----	80-D
Ultimate Pull Out Strength	-----	-----	18,000 lbs (Concrete failure)

**PHYSICAL PROPERTIES**

Tensile Strength,	ASTM D-638	5,000 psi
Tensile Elongation	ASTM D-638	3-4%
Compressive Strength	ASTM D-695	12,500 psi
Bond Strength	ASTM C-321	2,400 psi
Flexural Strength	ASTM D-790	8,000 psi
Deflection temp	ASTM D-648	190°F

**WARRANTY**

Recommendations concerning the performance or use of this product are based upon independent test reports believed to be reliable. If the product is proven to be defective, at the option of the Manufacturer, it will be either replaced or the purchase price refunded. The Manufacturer will not be liable in excess of the purchase price. The user will be responsible for deciding if the product is suitable for his application and will assume all risk associated with the use of the product. This warranty is in lieu of any other warranty expressed or implied, including but not limited to an implied warranty of merchantability or an implied warranty of fitness for a particular use.

## RECOMMENDED PROCEDURE FOR SURFACE SEALING WITH EMECOLE 302

The Emecole 302 for surface seal is designed to give a easy-to-mix consistency even at low temperatures. Its thixotropic paste consistency will not sag even when hot from its curing process (exothermic reaction during cure).

**At room temperature (75°F)**, Emecole 302 will exhibit a working life of 4-5 minutes. At these temperatures, it is best to mix parts A and B thoroughly for 45 seconds and immediately begin to apply to the surface. This is especially relevant in the summer months where the components may be at 75-95°F, and the product will be setting up in the mixing vessels within 3-4 minutes after mixing. The surface should be ready for injection 15-20 minutes after Emecole 302 was originally mixed.

**Do not mix more than what is anticipated to be processed in 4 minutes.**

**It is also recommended that if one mix is sufficient to prepare the crack, prepare the crack planning on setting the bottom port last (or the port which will be first used in the epoxy injection). If more than one mix is needed to prepare the crack, use the first mix to prepare the section that will be first used in epoxy injection.**

For example, consider a crack on a vertical surface. Typically, the injection process will begin at the bottom of the crack and working one's way up the crack. If it is going to take less than 4 minutes to do the setting of the ports and sealing the surface, begin applying Emecole 302 at the top of the crack and plan on setting the bottom port last. If it is going to take 2 or more mixes to seal the crack, begin setting the section with the first mix planning to finish this batch with the setting of the bottom port. Then continue to complete the sealing of the crack above this section with the subsequent mix(es).

The reason for the above technique(s) is that the longer the material is in the mixing container before being applied to the surface (which typically is at a temperature of 40-70°F) the more heat history it is developing. As a result, the last material applied to the surface will harden the fastest. Using this technique should assure that the material on the surface closest to the port(s) where injection will be initiated to be the most advanced in the curing process. Furthermore, if the surface is cool to cold (which would slow the hardening process), the material has had more time to initiate its hardening period. The procedure is particularly recommended in the colder months.