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PRODUCT DATA / INSTRUCTIONS

Emecole Metro 101HV Epoxy Injection

GENERAL DESCRIPTION

Emecole Metro 101 HV (2:1) is a two-component, 100% solid, epoxy resin system which has a unique high modulus of elasticity. Emecole Metro 101 HV is formulated to meet ASTM C-881 specifications.

USES

A) Structural repair of cracked concrete by pressure injection, grouting.
B) Monolithic restoration of delaminated concrete.
C) Grouting material when mixed with aggregate.

TECHNICAL DATA

PROPERTIES (UNCURED)

Emecole Metro 101 HV	Part A	Part B	Mixed
Viscosity	3500 CPS	1000 CPS	3000 CPS
Mixing Ratio By Volumn	2	1	2:1
Shelf Life	1 year	1 year	NA
Pot Life (50 gm)	NA	NA	10 - 15 minutes
Tack-free Time (Thin Film)	NA	NA	1 - 3 hours
Final Cure (75% ultimate strengh)	NA	NA	1 - 2 days

PHYSICAL PRORERTIES AFTER CURE OF 14 DAYS @75°F AT 50% R.H.

Emecole Metro 101 HV		Test Method
Tensile Strength	9500 PSI	ASTM D-638
Tensile Elongation	2%	ASTM D-638 modified
Compressive Strength	12,000 PSI	ASTM D-695
Compressive Modulus	500,000 PSI	ASTM D-695 (28 days)
Shear Strength	5100 PSI	ASTM D-732
Deflection temp: @ 264 psi	160°F	ASTM D-648
Bond Strength	2800 PSI	ASTM D-881

MATERIAL GUIDELINES

- Application Temp: 60–80°F (Ideal: 70–75°F)
- Storage Temp: 50–90°F
- Concrete Temp: Must be > 50°F
- Material Prep: Condition to 60–80°F before use

CAUTIONS

- Do not freeze
- Keep away from heat sources and open flame

Product Data (cont'd)

APPLICATION

Injection Pressure: The material is designed for a crack as narrow as 1/8 of an inch with pressures ranging from 20 to 300 psi. Inject through plastic ports, T's or copper tubing. If using plastic ports, depending upon the depth of the slab, place them every 6" to 2' along the length of the crack. Wherever possible, seal all surfaces of the crack. When dealing with hydrostatic pressure, hydraulic cement should be used to control the water flow and seal the crack. Begin injection of the mixed material with the lowest port or at one end of the crack. Continue pumping until resin flows from the next port. Then seal the first port and move onto the next one using the same procedure along the length of the crack.

SURFACE PREPARATION

All surfaces must be clean and free of dirt, dust, oil, grease or any contaminant that could adversely affect the bond. Surfaces must be structurally sound. Surfaces may be dry or damp. However, due to the many variables in bonding damp surfaces, be certain to make a test application under the same conditions as the full scale work.

Old Concrete: All loose particles or soft, weak sections must be removed. Asphaltic or oil contaminants should be removed with detergents or other cleaning materials. Surfaces should be thoroughly flushed with plenty of clean water and then treated with a 15% to 20% solution of muriatic acid. Mix the acid with water, approximately 1 part of acid to 3 to 5 parts of water, as required. Follow **SAFETY PRECAUTIONS** when using acids. Pour on surface in an even manner and thoroughly scrub until bubbling ceases. Rinse with plenty of clean water and allow to dry. Neutralize acid salts by scrubbing surface with ammonium hydroxide and rinse with plenty of clean water. If chemical means of cleaning does not properly prepare the surface, then other means of cleaning such as sandblasting, mechanical scarification and vacuuming should be utilized.

New Concrete: Do not apply curing compound. If curing compounds have been used, they must be removed.

PRECAUTIONARY STATEMENT

Do not handle until all safety precautions have been read and understood. Do not breathe vapors. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store locked up. Keep away from children and pets. Dispose of contents and container in accordance with applicable local, regional and national regulations.

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.