TERA-GEM III

Crack Injection System (RP50)

PRODUCT DESCRIPTION

Tera-Gem III Epoxy Crack injection System (CIJ) is a two component, solventless, low viscosity resin designed for pressure injecting into cracks, delamination and hollow planes in concrete. The pressure injected epoxy resin is used to restore the structural integrity in concrete by fully penetrating the cracks and developing high strength upon curing. This procedure allows the normal transfer of loads designed in the original structure. The injected resin completely seal the cracked area by preventing moisture and corrosive chemicals from seeping deep into hairline cracks from 3 mils to 250 mils in thickness and will adhere and cure in damp condition as low as 40F.

PHYSICAL PROPERTIES

Compressive Strength	(ASTM C-579)	11,000 psi. AFTER 7 DAYS
Flexural Strength	(ASTM C-580)	4,400 psi.
Tensile Strength	(ASTM C-307)	2,400 psi.
Flammability	(ASTM 635)	Self Extinguishing
Impact Resistance	(Mil D-3134F Sec 4.7.3)	No cracking or delamination at 16/ft./lbs.
Water Absorption	(ASTM C-413)	0.25%
Bond Strength, Primer	(ASTM 4541)	>400 psi

Physical Properties-Binder Cured 7 days

Tensile Strength	(ASTM D 638) psi	6,000 psi
Flexural Strength	(ASTM D 790) psi	9,400 psi
Flexural Modulus	(ASTM D 790) psi	3.05 x 10-5
Hardness	(ASTM 2240)	Shore D - 83
Abrasion Resistance	(ASTM 4060) CS10 Wheel	1000 cycles, wt. loss (gm) - .034 gm
Water Spot Resistance	72 deg. F. 8 hr. cure	Pass

Application Properties

Mix Ratio	2A : 1B by volume
Pot Life (minutes)	30-40 @ 77 deg. F
Application Temp.	(F. Min) 50 deg .F

When placed by trained applicators, Tera-Gem III CRS will provide a long lasting, easy to maintain floor that will stand up even in the most demanding of environments.

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SUGGESTED USES

Crack injection and grouting. Deep rebar injection and grouting.

CHEMICAL RESISTANCE (PARTIAL LIST)

Reagent	Film Integrity	Reagent	Film Integrity
30% Nitric Acid	No Effect	Urine	No Effect
30% Phosphoric Acid	No Effect	Household Cleaner	No Effect
20% Hydrochloric Acid	No Effect	(Non-Dye Containing)	
70% Sulfuric Acid	No Effect	Beer/Wine	No Effect
10% Acetic Acid	No Effect	Rubbing Alcohol	No Effect
50% Sodium Hydroxide	No Effect	Bleach	No Effect

SURFACE PREPARATION

Prepare area surrounding the crack by removing all loose material, grease, oil, paint and other contaminants that may affect adhesion. In area contaminated with oil and/or pollution, flush the area with an acid etchant and/or detergent solution followed by a water flush. Dry heat and/or air flow. Fill large holes, set entry ports, spaced at appropriate interval, and cracked area with Tera-Gem III RP45 patch epoxy.

SYSTEM APPLICATION

The epoxy resin and curing agent should be injected using a fixed ratio positive displacement pump. Pressure should not exceed as to cause a “blowout”.

MATERIAL HANDLING

Epoxy resins and curing agents have certain handling hazards. Users should become familiar with the information contained in the MSDS sheets for each formulated systems. Observe warning indications on the labels for each component.

PACKAGING

Tera-Gem III Epoxy Crack Injection System RP50 is available in pre-measured gallon, 3 gallon kits and 15 gallon kits.

NOTES

The following information is available online at www.teralite.com:

- Material Safety Data - Color Selection - Anti-Skid Recommendation -Maintenance Suggestions
- Chemical Resistance

The technical data furnished is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied. We suggest that the user evaluate these recommendations and suggestions in conjunction with their specific application. Tera-Lite, Inc. / Revolan Systems warrant its products to be free from manufacturing defects conforming to our most recent material specifications. In the event of liability, we will be limited to the replacement of material at the material value only and at the sole discretion of Tera-Lite Inc. /Revolan Systems. We assume no responsibility for coverage, suitability of application, performance, or injuries resulting from use.