

TERA-GEM III

Stucco/Grout System (RP45)

PRODUCT DESCRIPTION

Tera-Gem III Stucco/Grout (RP45) is a chemical resistance epoxy repair system designed for repairing deep and broad holes, ruts, erosions, chipped surfaces, joints and for surface modification for both vertical and horizontal surfaces. It is a tough wearing, 100% solvent free epoxy-aggregate composite. By varying the epoxy/ selected graded aggregate composition, various type of repairs can be done with exceptional physical properties and excellent chemical resistance. This product has excellent adhesion to concrete, steel and wood substrates.

PRIMER: Tera-Gem III Stucco/Grout liquid component, damp tolerant epoxy primer.

STUCCO/GROUT: Consists of Tera-Gem III Stucco/Grout epoxy resin, curing agent, inorganic pigments (for color) and select graded silica aggregates.

PHYSICAL PROPERTIES

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

Physical Properties-Binder Cured 7 days

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

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 RP45 will provide a long lasting, easy to maintain floor that will stand up even in the most demanding of environments.

SUGGESTED USES

Tera-Gem III RP45 is suitable for process areas, warehouses, fork lift traffic areas, food process plants, beer and beverage plants, distilleries, dairies, electronic plants, clean rooms, hospitals, commercial restaurant kitchens, sanitary facilities and areas that need skid resistance and excellent resistance to industrial chemicals.

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	No Effect	Bleach	No Effect
Hydroxide			

NOTE:

Although Tera-Gem RP45 system performs well in many chemical environments, it is not recommended for continuous immersion service. The customer/user needs to supply information regarding chemicals concentrations, service temperatures and cleaning procedures to verify correct use of the product. Review chemical resistance charts for additional chemical information. Contact our technical department for information regarding specific applications.

SURFACE PREPARATION

Concrete surfaces must be free from surface contaminants, laitance, curing compounds, oils, greases, dirt, chemical contaminants, un-bonded coatings, etc. The surface must be sound, without delamination. Concrete compressive strength must be a minimum of 2500 psi. Wet curing is the preferred method. User must notify manufacture for differing conditions.

To properly clean concrete surfaces, the concrete may be sandblasted, steel shot-blasted, scarified, water blasted, acid etched or any other approved technique. Acid etching should be used only when film forming curing compounds and oils are not present. Steel surfaces must be sandblasted to a minimum gray-white metal finish just prior to coating.

SYSTEM APPLICATION

PRIMER:

Use Tera-Gem III Stucco/Grout liquid components as prime. Use a clear bucket and mix 2 parts of A to 1 part of B by volume. Stir with a mechanical mixer for 1 to 2 minutes. Distribute mixed material evenly over the floor surface using rollers, squeegees or spray. Spread rate will vary from 70 to 150 sq. f.t. per gal. If surface s have been damp for a period of time, application rate should be 80-100 sq. ft. per gal. Do not apply over standing water or let primer set before applying next coat.

STUCCO/GROUT:

Use a clean container and mix Tera-Gem III CRS liquid components at a ratio to 2 parts A to 1 part B by volume. To one Mix STUCCO/GROUT liquid component at a mix ratio of 2A:1B by volume. Mix in a clean mixing vessel. To one weight equivalent of mixed liquid components, add approximately 4 weight equivalent of select graded silica aggregate. (Aggregate modifications can be made to adjust workability and physical property requirements. Contact our technical department for additional recommendations). Mix all components using an electric drill motor mixer or a plaster mixer. Mix all components for 2-3 minutes until uniformly wetted. Transfer to installation area and trowel or pour into desired shape.

MATERIAL HANDLING

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

PACKAGING

Tera-Gem III RP45 epoxy system is available in pre-measured gallon, 3 gallon kits, 15 gallons kits and 165 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.