

17G™ Rapid Cure



Item# RC17G Revised: 2/18/2010

Quick Setting - Ultra High Density Epoxy Grout

Description

Epoxytec 17G™ Rapid Cure is a 3-component, 100% solids, modified epoxy system formulated to produce a moisture-insensitive, chemical resistant, ultra high density epoxy grout. The 17G™ Rapid Cure system is a structurally (17,700 psi) abrasion resistant material, with an enhanced proprietary granular blend. Modified with rapid setting curing agents, the system is utilized for projects requiring a speedy return-to-service. With a 2 – 4 hour initial cure, the system provides operational uptime benefits with its rapid set time. Using the system provides an ultra-high build material with incredible corrosion protection, wear resistance and overall industrial-grade strength and durability.

Typical Uses

Epoxytec 17G™ Rapid Cure is recommended to combat wear and corrosion. Great for most industrial applications such as large aggregate transportation, solid waste tipping floors, heavy equipment areas, processing plants, etc.

Features

- "Green" - 100% solids, no VOCs
- Excellent bearing area for even distribution of loads
- Excellent wear and abrasion resistance
- Good chemical, corrosion and impact resistance
- Formulated resilience
- Pre-proportioned units
- Excellent adhesion
- Surface & moisture tolerant
- High flowability and fill characteristics
- Easy to apply
- Ultra high build
- Structural

Film Thickness

Epoxytec 17G™ Rapid Cure can be a single coat or a multiple coat system.

17G™ Rapid Cure can be applied onto a surface at 1" (minimum) - 12" (maximum) per coat. For a total coating thickness exceeding 12" mils, multiple coats are necessary.

Theoretical Coverage

Epoxytec 17G™ Rapid Cure is a 100% solid coating that will not shrink. Therefore, the theoretical coverage properties between wet film thickness (WFT) and dry film thickness (DFT) are the same. Five (5) square feet (sq.ft.) per 0.5 cu.ft. at 1" thick. Actual coverage will depend on surface conditions, irregularities, and surface profile.

Application Method

Epoxytec 17G™ Rapid Cure is a slurry grout consistency often used to pour and spread. If considering to "form," consider utilizing Epoxytec 17G™ Flow.

Aggregate must be completely dry.

Precondition all components to 70°F+ for 24 hours before using. Remove from the pail all three components. Pour the A & B Component into the pail & mix with a "Jiffy Mixer" blade attached to a 3/4 drill motor for two minutes. Immediately add entire contents of the aggregate component. Mix again for 3 minutes.

Surface Preparation

The success of any coating application is directly proportional to the completeness of the substrate preparation and the care the application crew puts into the application.

Surface must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, impregnation, waxes, foreign particles, and disintegrated materials from the surface, in order to achieve a clean and profiled surface.

Concrete: Prepare the concrete by abrasive blasting, high pressure water cleaning (>5000 psi), and/or approved mechanical methods to meet the standards of SSPC-SP 13/NACE No. 6. "Surface Preparation of Concrete."

Consider the use of an Epoxytec primer to eliminate off-gassing.



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Packaging & Color

- 0.5 cu.ft. kit Item# RC17G-K1 (natural)

Thinning

Epoxytec does not recommend thinning 17G™ Rapid Cure.

Storage & Handling

- Shelf life: 12 months, sealed.
- Storage: Store in a dry area away from direct sunlight.

Limitations

Minimum application and substrate temperature 40°F. Condition all components to 70°+ to assure good flow properties. Minimum grout depth is 1 inch. Maximum grout depth is 12 inches. If more than 12 inches is required, pour in lifts after first lift has developed initial cure. Cold material has reduced flow properties. Mix only complete units.

Safety

Consult Material Safety Data Sheet (MSDS) for all material safety information.

Technical Properties

Solids by Volume ASTM D2697	100%
Solvent (VOC) ASTM D3960	None
Pot (Mixed) Life	20 Minutes (77F)
Adhesion Strength (concrete) ASTM D4541	Substrate Failure
Tensile Strength ASTM C307	2,140 psi (7 day cure)
Slant Shear (Bond) Strength ASTM C882	7,600 psi (7 day cure)
Compressive Strength ASTM C579B	5,000 psi (2 hrs. cure @ 73F) 17,700 psi (7 day cure @ 73F)
Flexural Strength ASTM C580	3,790 psi (7 day cure @ 77F)
Modulus of Elasticity ASTM C580	1,800,000 psi (7 day cure @ 77F)
Coefficient of Thermal Expansion ASTM C531	14.8 X 10 ⁻⁶ in./in./°F (@ 74° to 210°F)
Peak Exotherm (12"X12"X3") ASTM D2471	250° F
Linear Shrinkage @ 7 days ASTM C531	< 0.025%
Thermal Compatibility ASTM C884	Passed
Flowability and Bearing ASTM C1339	> 90% contact area
Cure (return-to-service)	2 hrs. (77F)
Complete Cure	12 hrs. (77F)
Recoat Time	indefinite



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