

KEY BENEFITS AND FEATURES

- Ideal for installing green marble and other moisture-sensitive stone and agglomerates
- Excellent stain resistance
- High strength, shock and impact resistance
- Highly chemical resistant
- High temperature (HT) formula

Description/Uses

A dual-purpose, three-part epoxy system for interior floors and countertops is perfect for residential to extra heavy commercial use. When used as a mortar, this system is designed for installing green marble and other moisture sensitive stone and agglomerates over a wide variety of surfaces, including cold rolled steel.

Note: This data sheet describes 100% Epoxy Mortar and Grout for use as a mortar. Refer to the Grout version of this data sheet for use as a grout.

Suitable Substrates

Cured concrete, cured mortar beds, gypsum wallboard, masonry, brick, existing ceramic tile and natural stone—Surfaces to be tiled shall be structurally sound, dry and free from oil, grease, dust, loose or peeling paint, concrete sealers or curing compounds. Any or all contaminants of this nature, if they exist, shall be removed prior to the installation of tile. Surface protrusions and tile glazes shall be removed by sanding, scraping or chipping. Any substrate containing asbestos must be handled in accordance with existing EPA regulations. Contact your local EPA office. After preparation, remove all dust by vacuuming.

Vinyl composition tiles, resilient tiles, asphalt tiles, linoleum or non-cushioned vinyl sheetgoods—All linoleum must be sanded, stripped and cleaned of waxes, dirt and any contaminants that will interfere or prevent a good bond with adhesive. After preparation, remove all dust by vacuuming. *Note:* Vinyl composition tile or any substrate containing asbestos shall not be sanded because of the potential health hazard of breathing dust. These surfaces should be scored or scarified to promote a bond. Any substrate containing asbestos must be handled in accordance with existing EPA regulations. Contact your local EPA office.

Adhesive residue is acceptable provided the adhesive is well-bonded to an approved substrate. Scrape and remove as much adhesive as possible from the substrate. Loose adhesive may prevent a good bond between tile and substrate, resulting in installation failure. Do not install over tacky or pressure-sensitive adhesives.

APA Grade Trademarked Exposure 1 Plywood—Wood subflooring must be structurally sound and securely fastened with screw type or ring shank nails and adhesive. Plywood flooring should be free from dust, dirt, oil, grease, etc. Installations requires two layers, 1 1/8" (28 mm) total minimum thickness on bridged floor joists 16" (40 cm) on center, with a maximum deflection of 1/360 of the span. Joints in the top layer should be offset from joints in the bottom layer of plywood. A gap 1/8" to 1/4" (3-6 mm) is

required between overlay sheets and all materials they abut such as walls, posts, and adjacent sheets. Adjacent edges of plywood sheets shall not be more than 1/32" (0.8 mm) above or below each other. Patch holes, gaps and cracks with an appropriate TEC product (TA-325 or TA-327).

Cementitious Backer Units (CBU)—Follow manufacturer's installation directions.

Notes: Expansion joints shall be provided in the tilework over all construction or expansion joints in the backing and where backing materials change. Follow ANSI AN 3.7, Requirements for Expansion Joints.

Maximum variations in all substrates shall not exceed 1/8" in 10 ft. (3 mm in 3 m) from the required plane. Not for truing or leveling. For non-level surfaces use a suitable TEC® leveling compound.

Coverage and Trowel Recommendations

Coverage will vary with the absorption of substrate and trowel size. Figures below are presented only as guidelines.

Recommended Trowel Size	Approx. Coverage per 13 lbs kit (7.56 KG)	Approx. Coverage per 34 lbs kit (18.92 KG)
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) square notch trowel	18-20 sq. ft. (1.7-1.9 m ²)	50-55 sq. ft. (4.6-5.1 m ²)
1/4" x 3/8" x 1/4" (6 x 9 x 6 mm) square notch trowel	12-15 sq. ft. (1.1-1.4 m ²)	30-35 sq. ft. (2.8-3.3 m ²)

INSTALLATION INSTRUCTIONS

Mixing

All tiling materials, room and product should be kept at 60-90°F (16-32°C) for 24 hours before, during and after application. All materials and equipment used in mixing TEC 100% Solids Epoxy Mortar and Grout must be clean and dry. Wear rubber gloves to avoid skin contact. Separately stir individual containers of Part A and Part B prior to blending together, using a different paddle to stir each component.

Pour Part A and Part B into the mixing pail provided with this kit, scraping all material from each container. Blend thoroughly with a low speed mixer (not to exceed 300 rpm) to avoid entraining air for a minimum of 3 minutes. Continue mixing and slowly add the dry powder Part C until desired consistency is achieved.

Application

Apply mortar using the flat side of trowel to promote better substrate contact. Then, using the appropriate notched trowel, comb the mortar uniformly in a ridged pattern. Spread only an area than can be tiled in 20 to 30 minutes (or while surface is still tacky). Press, twist and beat tiles into setting bed to promote a good bond. Apply mortar in a heavy enough layer so that complete contact (no voids) between adhesive and tile is accomplished when tile is positioned. Keep a minimum of 2/3 of the joint depth available for grouting.

100% Solids Epoxy Mortar and Grout

Remove any excess mortar squeezed out of grout joints, on face of tile or on tools within 5 minutes with a clean sponge and water. Remove spacers, if used. For additional information, refer to ANSI A108.6 installation details.

Average working time of 100% Solids Epoxy Mortar and Grout is 1-2 hours. Initial set is 16-20 hours. Protect from traffic for 16 hours.

Clean-up

Clean tools, hands, and excess materials from face of tile, while mortar is still fresh, with warm soapy water.

Limitations

Not for exterior use. Not for use over rubber or strip wood floors. For setting light colored marble or stone, use 931 Standard White or 943 Victorian White epoxy mortar. Do not apply over dimensionally unstable surfaces such as: single layer wood floors, lauan plywood, particle board, oriented strand board or gypsum underlayments. 100% Solids Epoxy Mortar and Grout should not be applied when the

temperature of the area to be tiled is below 60°F (16°C) as this delays the curing process. Maintain working temperature at 60-90°F (16-32°C). Store in a dry location. Do not store open containers. Yellowing can occur in any 100% epoxy product, and for this reason, TEC Specialty Products, Inc. cannot guarantee that yellowing will not occur.

Precautions

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered TEC product(s) under normal environmental and working conditions. Because each project is different, TEC cannot be responsible for the consequences of variations in such conditions, or for conditions not foreseen by TEC.

TECHNICAL DATA

In-Use Performance	100% Epoxy Mortar and Grout TA-470	
	ANSI Requirement	Typical Results
Bond Strength Quarry Tile	1000 psi (6.9 MPa)	> 1300 psi (9.0 MPa)
7 Day Linear Shrinkage <small>Tested in accordance with ANSI A118.3 Specifications for Chemical Resistant Water Cleanable Tile Setting and Grouting Epoxy</small>	< 25% shrinkage	0.0% shrinkage
7 Day Compressive Strength (ASTM C579)	3500 (24.2 MPa)	> 9700 psi (66.9 MPa)
7 Day Tensile Strength (ASTM C307)	1000 psi (6.9 MPa)	> 2500 psi (17.2 MPa)
Physical State	Paste, once mixed	
Pot Life	90 minutes	
Initial Set	16 to 20 hours	
Storage	Store in cool, dry location. Do not expose to nor store in direct sunlight.	
Shelf Life	Maximum of 1 year from date of manufacture in unopened package.	

Packaging

Available in:

- 13 lb. kit (5.89 kg) packaged in a 2 gallon plastic pail (7.56 L)
- 34 lb. kit (15.42 kg) packaged in a 5 gallon plastic pail (18.92 L)

Colors

- Available in:
- 915 Light Smoke
 - 927 Light Pewter
 - 931 Standard White
 - 934 DeLorean Gray
 - 941 Raven
 - 943 Victorian White
 - 969 Coffee

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