



# FRACTURE GUARD

## LIQUID-APPLIED ELASTOMERIC CRACK ISOLATION MEMBRANE

- Low VOC
- Interior or exterior
- Crack isolation up to 1/8"
- Adheres to all common surfaces
- Thin section – does not interfere with elevations
- Apply with brush, roller or trowel
- Mold and mildew resistance



### 1. Product Name

Fracture Guard

### 2. Manufacturer

Parex USA, Inc.

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### 3. Product Description

#### Basic Use

Merkrete Fracture Guard is a single-component, mold-resistant crack isolation membrane composed of modified latex that provides a monolithic surface with excellent elongation. Its thin section and remarkable elongation inhibit the transfer of cracks from the substrate to the finished ceramic, porcelain or stone tile finish. The membrane is installed in a semi-fluid state and easily conforms to any form or irregular shape.

#### Uses

Fracture Guard is installed over any sound substrate normally acceptable to receive ceramic, quarry, porcelain and stone tiles. It is ideal for residential and commercial applications. When installed in accordance with manufacturer's specifications, Fracture Guard inhibits transference of shrinkage and nonstructural cracks caused by horizontal movement where tile and stone finishes are used.

#### Suitable Substrates

- Brick masonry
- Cement backer board<sup>1</sup>
- Cement mortar beds
- Cement terrazzo
- Ceramic and stone
- Concrete
- Exterior-grade plywood<sup>2</sup>
- Gypsum drywall<sup>2</sup>
- Gypsum mortar bed<sup>3</sup>
- Oriented strand board<sup>2</sup>

<sup>1</sup> Consult the cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use

<sup>2</sup> Interior use only

<sup>3</sup> Requires the use of 101 Overspray primer



### 4. Technical Data

Applicable Standards: Merkrete Fracture Guard meets or exceeds tile industry requirements:

ANSI A118.12 crack isolation membrane for thin set ceramic tile and dimension stone installation. Follow

TCNA method F125 and F125A, ANSI A08.17 for installation, in addition to the container's directions.

Physical & Test Data	Fracture Guard FD	
Adhesion	>350psi	
Elongation	>1000%	
Range of temperature for use	40° F to 110°F (at installation) 35° F to 150°F (after installation)	
Drying Time (to touch per layer)*	4-6 hours at 70°F and 50% R.H.	
LEED 2.2 NC VOC	EQ Credit 4.1	Fracture Guard Results
VOC	<65g/l VOC	<20g/l VOC

\* When cured at 70° F or higher at 50% R.H. Lower temperature at higher R.H. will require longer cure times

### Packaging

3 ½ gallon (13.245 l) pail; 48 pails per pallet

### Shelf Life

Reference Parex USA Expiration Date of Products Technical Bulletin.

## 5. Installation

### Surface Preparation

All surfaces must be between 40° F (4° C) to 95° F (35° C) and structurally sound (deflection not to exceed 1/360 of the span), dry, clean and free from oil, grease, wax, paint, old adhesives, sealers and curing compounds. Any contaminants that inhibit proper bond must be removed. Substrate preparation should be completed following ANSI A108 AN-2 "General Requirements for Sub-surfaces." All substrates should be plumb and true; surface deviation should not exceed 1/4" in 10'. Patching, leveling or areas requiring a mortar bed should be prepared using Merkrete underlayment. Movement (expansion) joints should be provided to comply with TCNA method EJ 171. If product has separated, product should be mixed with a slow mixing drill, not incorporating air. Some separation may occur upon standing, which has no reflection upon the quality of the product.

### Preparation

**Joints and Cracks:** Pre-fill all substrate cracks, cold and control joints with Merkrete thinsets, PUC caulking, approved urethane or 100% solids silicone sealant.

**Cement Substrates:** All concrete substrates should be cured a minimum of 14 days. Steel trowel floors to a fine broom finish. Keep Fracture Guard a minimum of 6 – 8 inches from the wall and all penetrations through the concrete surface. This will allow venting of any retained moisture.

**Cement Backer Board:** Follow cement board manufacturer's instructions. Tape and fill joints per manufacturer's directions and "Preparation" section of this data sheet.

**Gypsum Mortar Bed:** Merkrete has partnered with Maxxon Corporation and is providing the tile industry's most comprehensive warranty over Maxxon Gyp-Crete or gypsum mortar bed substrates. All gypsum mortar beds must be primed with Maxxon Overspray. Then install Fracture Guard membrane following the "Membrane Application" directions included in this data sheet using TCNA method #F125A for full coverage.

**Plywood and OSB Substrates:** All plywood installations should be interior areas only and protected from exposure to moisture. Cement backer boards may not be required when the wood substrate meets or exceeds the deflection requirements specified by TCNA and the Marble Institute of America. Merkrete will provide our standard warranty on tile applications over Fracture Guard using OSB or plywood substrates meeting the above requirements.

### Membrane Application

Allow any recently-prepared areas to dry. When installing Fracture Guard using TCNA method #F125A Full Coverage: apply a liberal coat of Merkrete Fracture Guard Membrane. When installing Fracture Guard using TCNA method #F125 Partial Coverage: apply a liberal coat of Fracture Guard, the diagonal dimension of the tile, each side of the crack. Periodically check the film thickness with a wet film thickness gauge; wet coat should be applied approximately 30 to 35 mils wet thickness at a rate of 80sq. ft. per gallon. Total Fracture Guard membrane thickness after drying should be between 14 to 17 mils. If applying more than one layer of membrane and 24 hours of drying/curing has occurred, Merkrete PrepSeal should be applied to the previous layer of membrane before additional layers are applied.

**Movement (expansion) joints:** Designed to experience movement, should be provided to comply with TCA method EJ 171.

### Ceramic or Stone Application

Ceramic or stone tile can be installed immediately after the Fracture Guard membrane has dried to the touch. Residual tack (stickiness) is common. To help lessen tack, lightly "dust" the surface with dry thinset. Merkrete recommends quality latex Portland cement thinset like Merkrete Systems 705, 710, 7D10, 720, 735, 750, 808, 820, 831 and 855 mortars. Follow the directions on thinset container for proper application.

### Curing

Provide adequate protection for Fracture Guard membrane, even if covered with a ceramic or stone tile application, against exposure to rain or inclement weather for a minimum of 24 hours at 70° F (21° C) and 50% R.H. Under normal drying conditions, may be walked on after 6 hours.

### Cleaning

Clean tools, hands and equipment with warm soapy water before the material has dried. Material that has dried is difficult to remove, remove while fresh.



### Coverage

3 ½ gallon-unit: 280 sq. ft.

### Limitations

Do not use Fracture Guard membrane below 40° F (4° C); do not allow membrane or substrate to be below 40° F (4° C) for the first 72 hours after application. Cool and wet weather may delay the set times of the Fracture Guard membrane. Do not leave Fracture Guard membrane unprotected or exposed to weather for more than 30 to 72 hours. Do not use membrane as an adhesive or wearing surface; membrane must be covered with ceramic or stone tile. Maximum amount of moisture in the concrete substrate using a calcium chloride test should not exceed 5 lbs./1,000 sq. ft.

### 6. Availability

Merkrete Fracture Guard membrane is available at leading tile houses and construction distributors. Contact Merkrete for the name of the nearest dealer at [www.merkrete.com](http://www.merkrete.com).

### 7. Warranty

5-year, 10-year and Limited Lifetime warranties are available. Contact Merkrete Technical Services for specific warranty information. Merkrete

Systems warrants that this product meets applicable ANSI standards in force at the time of manufacture.

### 8. Maintenance

None required, but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

### 9. Technical Services

Merkrete Systems maintains technical field representatives available throughout the country. Call Technical Services at 800-226-2424 for the nearest representative.

### 10. Literature

For the most up to date technical information (details, submittals, SDS or data sheets), refer to our websites, [www.parexusa.com](http://www.parexusa.com) or [www.merkrete.com](http://www.merkrete.com).



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