



Premium Building Products  
That Protect

# AFM® Anti Fracture Membrane

## PRODUCT DATA SHEET



### 1. PRODUCT NAME

AFM Anti Fracture Membrane

### 2. MANUFACTURER

Protecto Wrap Co.

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### 3. PRODUCT DESCRIPTION

AFM Anti Fracture Membrane peel and stick sheet membrane specifically designed for use under ceramic tile, porcelain and natural stone as a stress relieving material used in conjunction with thin set methods.

#### Accessory Materials

No. 6000 Primer - This high tack water based primer is ideal for use on indoor applications. Available as a concentrate, this primer can be mixed at the jobsite with clean water or used in its full concentrate form, depending on the condition and porosity of the substrate.

**Protecto Universal Water Based Primer** - High tack water based primer.

#### Packaging

AFM Anti Fracture Membrane

Full floor coverage

- 36" x 75' roll

Localized crack isolation

- 12" x 25' Suppression Kit (includes primer)
- 12" x 75' Suppression Kit (includes primer)
- 12" x 75' roll

#### Coverage

AFM Anti Fracture Membrane

36" x 75' = 225 ft<sup>2</sup> (20.9 m<sup>2</sup>) per roll

#### Shelf Life

AFM Anti Fracture Membrane maintains optimum initial adhesion to substrates when used within one year from the date of manufacture.

#### Uses

- For interior applications under thin set ceramic, porcelain and dimensional stone tile installations

#### Advantages

- Has the flexibility and strength to withstand structural movement and concrete shrinkage cracks up to 3/8"

without transferring stress load to finished tile

- Can be installed with radiant heat floor systems
- Provides an Extra Heavy Load Rating
- Anti-microbial coating

#### Suitable Substrates

- Exterior glue plywood
- Mortar beds
- Concrete
- Cement backer board
- Cement terrazzo
- Ceramic tile and dimensional stone
- Gypcrete
- Stained concrete
- Radiant heated subfloors
- Metal
- Portland based leveling and patching compounds
- Oriented strand board (OSB)

#### Limitations

- Not recommended for use on concrete floors when hydrostatic head pressure or excessive water vapor transmission exceeds 4lbs. (tested by "Calcium Chloride Test" method), where constant water vapor transmission is present or an RH level of more than 75% of slab, these conditions must be mitigated prior to AFM installation.
- Not recommended for use where horizontal floor movement is greater than 3/8" (9.5 mm).
- Cracks larger than 3/16" should be prepared with proper backing material and treated in accordance with TCNA F125.
- Do not use over cracks or control joints larger than 3/8". Joints that are designed to experience movement should be treated in accordance with TCNA EJ171.

- Do not use any solvent-based sealants on or around AFM as they may deteriorate the product.
- Not recommended for use where vertical floor movement is present.
- Do not apply over marine-grade plywood, wood plank flooring, particle board, Luan, Masonite or laminate surfaces.
- Not for use under gypsum or cement based self-leveling underlayments, agglomerate tile or decorative wear surfaces.
- When installing tile over AFM, it is required to maintain a thin-set thickness of 3/8" (9.5 mm) or less after the tile is embedded, even if the mortar manufacturer allows for thicker installations. Thicker mortar beds can potentially provide sufficient moisture to cause some natural stones to warp or crown.
- Not recommended for vertical applications exceeding 8' (2.4 m) in height.
- For vertical exterior applications, contact Protecto Wrap to confirm design includes adequate mechanical fastening and movement joints for application.

#### 4. TECHNICAL DATA

| Property                | Test method | Result                         |
|-------------------------|-------------|--------------------------------|
| Color                   |             | Grey top/black adhesive        |
| Thickness               |             | 40 mil                         |
| Application Temperature |             | 45°F to 120°F (7°C to 49°C)    |
| Operating Temperature   |             | -20°F to 180°F (-29°C to 82°C) |
| Robinson Floor Test     | ASTM C627   | Extra Heavy                    |

## 5. INSTALLATION

Follow flooring manufacturer's recommended installation instructions. Installation and substrate requirements must also conform to TCNA standards. Flooring and membrane must acclimate to job site conditions before installation.

Flooring and membrane must acclimate to jobsite conditions before installation. Substrates must be dry, clean and free of dirt, grease, wax, paint, oil or anything that would adversely affect adhesion of the AFM. Not for use on concrete floors when hydrostatic head pressure or excessive water vapor transmission exceeds 4lbs. (tested by ASTM E1869 "Calcium Chloride Test" method), where constant water vapor transmission is present or an RH level of more than 75% of slab, these conditions must be mitigated prior to AFM installation.

Priming the substrate: Always apply the Protecto Wrap #6000 primer or Protecto Universal Water Based Primer™ to the substrate and allow to dry (approx 20-30 min.) before installing the AFM to ensure a good bond.

### Installation

There are 3 installation techniques: crack isolation, full floor coverage and vertical application.

Note – There will be an immediate and aggressive bond of the membrane to the primed substrate. Realignment of the membrane can be difficult once adherence to the substrate begins.

**Crack Isolation** – Prime area as described above and allow to dry. Cut the desired length(s) of AFM to cover the crack or area of distress as follows:

1. Membrane must cover crack 1-1/2 times the width of the tile or a minimum of 6" on each side of crack.
2. Where any portion of a tile spans a crack, the tile must rest completely on membrane.

Note – If membrane width does not meet the above criteria, turn the membrane 90° and apply in proper lengths perpendicular to the crack. Use multiple strips in a butt joint fashion to cover the length of the crack.

To apply membrane, carefully remove the first few inches of the paper release backing. Align 6" (152 mm) above the beginning of the crack and press into place. Continue removing the release paper, exposing the adhesive bottom, while smoothing the membrane onto the primed surface. Continue to smooth the membrane as it comes into contact with the primer, which is essential to gain maximum adhesion, as well as to minimize trapping air beneath the membrane. Repeat process as necessary.

**Full Floor Coverage** – Prime area as described above and allow to dry. Roll out the AFM membrane (do not remove the release paper at this point) and cut to the appropriate length. Pull one half of the membrane on top of the other half. Lightly score the paper at the halfway point. Do not cut through the adhesive. Begin pulling the release paper off the upper section and apply the exposed adhesive bottom to the primed surface, smoothing the membrane as the adhesive comes into contact with the surface. Once completed, pull the other half of the AFM membrane on top of the applied AFM membrane. Pull the remaining release paper off the membrane while smoothing the AFM into place.

Pre-cut a new sheet of AFM and align the new membrane sheet next to the installed AFM membrane sheet as described above. Should air become trapped beneath the membrane, puncture it with a sharp instrument and press the sheet flat. For maximum performance, ensure that 100% of the surface is in contact with the primed substrate.

**Vertical Application** – Prime the surface with No. 6000 Primer in its concentrated form or Universal

Water Based Primer (do not dilute). Apply the membrane as previously described. AFM should be installed from the highest point down in a vertical fashion. For vertical applications, see Limitations section.

## **6. AVAILABILITY AND COST**

AFM Anti Fracture Membrane is manufactured in Denver, CO; it is competitively priced and available worldwide through a network of Protecto Wrap distributors. For detailed product information or to find a local representative or distributor, contact Protecto Wrap Company corporate office for information at 1-800-759-9727.

## **7. WARRANTY**

AFM Anti Fracture Membrane is warranted to be free of defects in manufacture for a period of 10 years. Protecto Wrap assumes no warranty as to the installation of its products.

## **8. MAINTENANCE**

None required. If installed in accordance with manufacturer's recommendations, AFM Anti Fracture Membrane should last the life of the structure.

## **9. TECHNICAL SERVICES**

Complete technical assistance and information are available from Protecto Wrap.

## **10. FILING SYSTEM**

Additional product information is available on our website at [protectowrap.com](http://protectowrap.com) or contacting our corporate office at 1-800-759-9727.