



Premium Building Products
That Protect

AFM-WM[®] Anti Fracture Waterproof Membrane

PRODUCT DATA SHEET



1. PRODUCT NAME

AFM-WM Anti Fracture Waterproof Membrane

2. MANUFACTURER

Protecto Wrap Co.
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3. PRODUCT DESCRIPTION

AFM-WM membrane is a peel and stick sheet membrane specifically designed for under ceramic tile, porcelain and natural stone as a waterproof, 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.

No. 1170/80 Primer- Asphalt, SBS, solvent based primer for exterior applications.

Protecto Universal Water Based Primer -high tack water based primer for interior and exterior use

JS160H Mastic- a rubberized blend of premium grade bituminous and synthetic resins used for sealing detail cuts and membrane terminations and seam overlaps

AFM500 Detail Tape- Unreinforced conformable tape used prior to installing AFM-WM for detailing inside corners, drains, posts, protrusions, and floor-to wall transitions.

Packaging

AFM-WM Anti Fracture Waterproof Membrane
36" x 75' roll

Coverage

AFM-WM Anti Fracture Waterproof Membrane
Approximate 225 ft² (20.9 m²) per roll

Shelf Life

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

Uses

- For waterproofing and crack isolation protection under thin set ceramic, porcelain and dimensional stone tile installations.

Advantages

- Meets ANSI 118.10 Standards for a waterproof membrane
- Prevents in plane cracks from surfacing in tile floor finishes
- 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

- Concrete
- Mortar beds
- Exterior glue plywood
- Cement backer board
- Cement terrazzo
- Ceramic tile and stone

Limitations

- Do not apply over marine-grade plywood, wood plank flooring, particle board, oriented strand board (OSB), Luan, Masonite, laminate, metal or fiberglass surfaces
- Not for use under agglomerate tile, LVT, cement and epoxy floor topping systems
- Not for use on concrete floors where hydrostatic pressure exists or where moisture vapor transmission exceeds 4 lb.
- Do not use under mortar beds thicker than 3/8 inch, installations requiring more than 3/8" of thin-set mortar need to be raised with a self-leveling compound or a pre-mortar bed
- Do not use solvent based sealants or sealers where contact with membrane may occur
- Do not install over wet primer
- Existing cracks larger than 3/16" should be prepared with proper backing material prior to installation of membrane
- Not for use over expansion or structural movement joints

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
Meets ANSI 118.10 Standard for Load bearing, bonded, waterproof membrane for thin set tile installations		
Meets ANSI 118.12 Standard for Crack-Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation		
Test method		Result
4.1	Fungus and Microorganism Resistance	Pass
5.1.3	7 Day Shear Strength	Pass
5.1.4	7 Day Water Immersion Shear Strength	Pass
5.1.5	4-Week shear strength	Pass
5.1.6	Accelerated Aging	Pass
5.2.3	Point Load Resistance	Pass

5. INSTALLATION

Surface Preparation

Subfloor must conform to ANSI A108.01 standards. Assemblies over which AFM Anti Fracture Membrane will be installed shall be in conformance with the International Residential Code (IRC) for residential applications, the International Building Code (IBC) for commercial applications, or applicable building codes.

Perimeter and field movement joints are to be installed in accordance with TCNA Method

EJ171.

Flooring and membrane must acclimate to jobsite conditions before installation. Concrete subfloors must be dry, clean and free of dirt, grease, wax, paint, oil or anything that would adversely affect adhesion of the AFM Anti Fracture Membrane.

Check subfloor for excessive moisture using ASTM E1869 Standard Test Method for measuring moisture vapor emission rate of concrete subfloor using Anhydrous Calcium Chloride. Readings must be less than 4 lb.

Priming -Interior

Apply Protecto Wrap #6000 Primer to the subfloor and allow to dry (approximately 30 minutes) before installing the AFM-WM membrane to ensure a good bond.

Priming-Exterior

Apply No. 80 or Pretecto Universal Primer onto the surface with a brush or roller at an application rate of 150 - 200 ft²/gal and allow to dry. Coverage may vary depending on the porosity of the surface.

Detailing

Apply AFM 500 Detail Tape areas around pipes, conduits or any protrusions through the subfloor should be primed and taped with a 6" piece of AFM 500 Detail Tape. Force and form the Detail Tape to fit tightly to the protrusion and the subfloor.

At drain openings, apply a light coat of primer and allow it to fully cure. Cover drain at least 6" past all perimeters with AFM 500 Detail Tape. Remove the release paper, apply membrane over the drain hole, cut an X in the center of the hole and form the Detail Tape into the drain. Be sure the membrane has 100% contact with the primed drain surface. Remove the top release film. Double ply with a full sheet of AFM-WM over the Detail Tape, then cut and form it around or into the protrusion or drain. Apply a

troweled bead of JS160H mastic at the membrane terminations. Secure the drain clamping ring tightly over the AFM-WM membrane.

Floor to Wall Transitions and Inside Corners. After priming the floor and wall, apply a 6" strip of AFM 500 Detail Tape tightly at all floor-to-wall transitions and into the corners. Remove the release paper and install the Detail Tape 3" on the floor and 3" up the wall. Press the Detail Tape tightly into the corner and be sure to keep any voids from occurring behind the Detail Tape. Remove the release film from the face of the Detail Tape prior to installing the AFM-WM membrane

Applying AFM-WM membrane

Always apply AFM-WM membrane with the Zip Strip overlap guide as the leading edge for the proper seam. Roll out the AFM-WM 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. Smooth out the membrane as the adhesive comes into contact with the surface. This is essential to minimize air beneath the membrane. Once completed, pull the other half of the AFM-WM membrane on top of the applied AFM-WM membrane. Pull the remaining release paper off the membrane while smoothing the AFM-WM into place. Pre-cut a new sheet of AFM-WM and align the new membrane 2" over the overlap guide on the installed AFM-WM membrane. Remove the overlap release film from the installed AFM-WM membrane 2" past the overlap guide. Continue to install the new membrane sheet as described above. Firmly roll the 2 membrane sheets together, forming a cohesive bond at the

overlap. For maximum performance, 100% surface contact to the primed substrate must be achieved. Note - Should air get trapped beneath the membrane, puncture it with a sharp instrument and press the sheet flat. Repair any punctures per guidelines cited in Repairs section. Application
Pull release liner away from membrane where scored. As the release liner is pulled away, hand-smooth the membrane to contact the primed subfloor. Keep the release liner material close to the floor while pulling away; this will allow for a more controlled application of the membrane. Align membranes in a butt joint fashion making sure not to overlap seams.

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

Applying JS 160H Mastic

Use a troweled bead of JS160H Mastic on all termination edges, bent seams, end laps, overlaps and detail cuts the same day of application.

End laps and corner overlaps must be a minimum of 6". Place two 1" troweled beads of JS160H Mastic 1" apart beneath all overlaps and firmly roll the seam. Trowel a 1" bead of JS160H Mastic onto the edge of the overlap, extending 1/2" on both layers of AFM-WM. Apply a 1" troweled bead of JS160H Mastic 6" in both directions to all overlaps and "T" joints. Mastic must be allowed to cure for a minimum of 24 hours prior to flood testing.

Repairs

Carefully inspect the applied membrane before covering to ensure that it is free of large blisters, fish mouths or any damage. If the membrane is damaged and requires repair, clean the affected area and lightly prime at

least 6" beyond the area damaged and allow surface to dry. Cut an AFM-WM membrane patch. Cover the reprimed area, press on the patch and roll firmly. Apply a troweled bead of JS160H Mastic on all edges of the patch. The patch must overlap the damaged area at least 6" on all sides.

FLOOD TESTING

AFM -WM system must be installed at least 24 hours prior to flood testing. Protecto Wrap Company recommends following ASTM D5957 testing protocol when performing a flood test. Perform flood test with a minimum of 2" and a maximum of 4" of water for 24 hours. Drains should be plugged and barriers placed to contain the water. All leaks shall be located and repaired (see "Repairs") prior to covering the membrane. There shall be a minimum 24 hour wait period after repairs are made prior to re-testing AFM-WM system. The mastic must cure at least 24 hours prior to flood testing (48 hours prior to flood testing on all planter boxes). Perform a flood test with a minimum of 2" and a maximum of 4" of water for 24 hours. Plug all drains and position barriers to contain the water. Repair any leaks prior to covering the membrane. Upon completion of repairs, re-flood the affected area to ensure that repaired leaks are sound.

After AFM-WM Anti Fracture Waterproof Membrane is installed, ceramic or stone tiles can be installed in 3/8" or less bed of mortar that meets the ANSI 118.4 standards

Continue to follow the TCNA and ANSI installation requirements through the remainder of the installation.

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.

7. WARRANTY

AFM Anti Fracture Membrane is warranted to be free of defects in manufacture for a period of 5 years. Protecto Wrap assumes no warranty as to the installation of its products. Should a Protecto Wrap product prove defective during the term of this guarantee, Protecto Wrap will pay for replacement of the portion of the installation that involves the defective product. This payment will include finish materials, labor and installation; provided the cost per square foot to Protecto Wrap does not exceed the original cost of installation per square foot.

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 field representatives and distributors or by contacting the manufacturer.

10. FILING SYSTEM

Additional product information is available on our website at protectowrap.com or contacting our corporate office at 1-800-759-9727