Liquid Waterproofing & Crack-Isolation Membrane

Premium Building Products That Protect
DefenSeal® is a ready to use liquid latex waterproofing and Crack Isolation membrane specifically formulated for use beneath ceramic, porcelain and natural stone tile on horizontal and vertical applications. Applied by brush, roller or trowel, DefenSeal provides a continuous moisture barrier with flexibility giving it crack isolation properties. DefenSeal exceeds the requirements of ANSI A118.10 and can be used in commercial or residential applications.

**PROPERTIES AND ADVANTAGES**

- Moisture barrier exceeding ANSI A118.10 requirements
- Inhibits mold and mildew growth
- Crack Isolation protection up to 1/8" with Fabric
- Quick & easy application with brush, roller or trowel
  - Easy Cleanup
  - Install tile, stone or ceramic, porcelain and natural stone directly on membrane
- Safe, Non-Flammable
- Extra Heavy Service Rating (ASTM C627/TCA)

**AREAS OF USE**

- Showers & Tub Surrounds
- Kitchens
- Food Processing Areas
- Laundry Rooms
- Bathrooms
- Countertops
- Commercial
- Residential

Protecto Wrap’s 50 years of waterproofing expertise allows ar
**Crack-Isolation Membrane**

- **Vertical**
- **Commercial**
- **Residential**

### APPROVED SUBSTRATES

- Concrete
- Cement Mortar Beds
- Cement Backer Board***
- Gypcrete® (Gypsum based concrete levelers)****
- Exterior Grade Plywood*
- Gypsum Board*
- Ceramic Tile & Stone
- Cement Terrazzo**

- Interior applications only
- ** If skim coated with latex-modified thin set
- *** Follow Backer Board manufacturer’s installation procedures.
- **** Lightweight Gypsum Based concrete substrates must be “primed” with a diluted mix of DefenSeal (5 parts water to 1 part DefenSeal). This ensures substrate stability and membrane bonding.

**Note:** Concrete and cementitious surfaces must cure for 28 days prior to application of membrane and wood substrates must have adequate thickness to prevent excessive deflection (L/D Ratio for Tile = 1 / 360, L/D Ratio for Stone = 1 / 720).

### SURFACE PREPARATION

Substrate materials must be clean, dry, structurally sound, free of defects and flat. Remove all paint, laitance, efflorescence, concrete sealers and/or curing compounds and any material that may hinder adhesion. DefenSeal is not recommended for use on concrete floors where hydrostatic head pressure is present or water vapor emission rate exceeds 3 lbs.

**Wet Areas:** Areas such as showers must have the floor pre-sloped 1/4” per foot towards drainage area.

**Jobsite Conditions:** Apply when jobsite temperature is between 45˚ and 100˚ F.

**Coverage:** Will vary based on the porosity and roughness of substrate. Coverage for a two-layer application is approximately 45 sq ft / per gallon.

### APPLICATION

**Application:** Installations must be in accordance with applicable ANSI, TCA, and NTCA installation specifications.

**Coves and Corners:** Using a 1/2” nap roller, brush or trowel* apply a liberal amount to coves, corners and drain areas. While DefenSeal liquid is still wet, embed 6” wide DefenSeal reinforcing fabric and coat over with a second application of liquid membrane. Allow DefenSeal liquid membrane to dry in coves and corners before beginning application in the field areas.

**Priming or “Keying” in membrane to substrate:** To ensure a good physical bond of membrane to substrate priming the floor with a diluted mix of DefenSeal is recommended. Mix 1 part DefenSeal with 5 parts water to create a primer, which may be applied by brush or paint roller. Allow the primer to dry to the touch before applying the regular application of full strength DefenSeal. “Keying” is another good way to ensure a good bond. Spread a layer of DefenSeal membrane onto the substrate with a small-notched trowel or roller. Then, with a flat trowel, “key” the material into the substrate by applying pressure while skimming the liquid with the trowel.

### Installations Requiring Waterproofing Only:

After cove and corner areas are dry apply a coat of DefenSeal Liquid over the entire field area using a 1/2” nap roller, brush or trowel*. When dry to the touch, apply a second coat at a 90˚ angle to the first application. Review the surface for any thin spots or defects and apply more membrane as needed. The dry film thickness of the membrane should be a minimum of 30 mils to ensure a waterproof layer and qualify for the warranty. Installations requiring waterproofing and warranty crack isolation characteristics, DefenSeal-reinforcing fabric must be embedded.

* Use a 3/16” V-notch trowel to apply membrane then use smooth side of trowel to flatten ridges to a uniform thickness.

**Waterproofing & Crack Isolation Membrane Continued on Back...**
Field Areas requiring isolation of 1/16" cracks:
• After cove and corner areas are dry apply a coat of DefenSeal Liquid over the entire field area using a 1/2" nap roller, brush or trowel*. When dry, review the surface for any thin spots or defects and apply more membrane as needed. The dry film thickness of the membrane should be a minimum of 30 mils.
• Place and embed DefenSeal-reinforcing fabric into the wet coat of the liquid using a roller, brush or flat trowel to smooth any wrinkles. The liquid should bleed through the fabric and the fabric must overlap at the seams by 2".
• Roll, brush or trowel* on a second coat of liquid membrane allowing for complete saturation and covering of the DefenSeal fabric.

Areas requiring enhanced isolation of 1/8" crack:
• Embed a second layer of DefenSeal reinforcing fabric into the topcoat of liquid while still wet and the liquid bleeds through the fabric.
• Once the second layer of fabric is completely embedded apply a final coat of DefenSeal liquid membrane completely covering the fabric over the entire area.

Dry Time: Drying time will vary with jobsite temperature and humidity conditions. Typically, drying will not exceed 12 hours. DefenSeal membrane is dry and ready to accept tile installation when its color has changed from light blue to dark blue and is dry to the touch. Allow membrane to cure for a minimum of 48 hours prior to conducting water tests.

Tile Adhesion: Install tile using latex-modified thin-set mortar.

Clean Up: DefenSeal is latex-based and cleans up relatively easy using soap and water while the material is wet. Once dried, the material is difficult to remove.

Limitations: DefenSeal is not recommended for use on concrete floors where hydrostatic head pressure is present or water vapor emission rate exceeds 3 lbs. Do not use over expansion joints, control joints or any structural cracks where vertical movement is anticipated. Not intended for inverted applications (ceilings). It is important to maintain a thin-set thickness of 3/8" (9.5mm) or less after the tile is embedded. Do not use any solvent-based sealants on or around Defenseal as they may deteriorate the product.

Warranty: DefenSeal Liquid Membrane is warranted to be free from defects in manufacture for a period of 5 years. This warranty is limited to the replacement of material. Protecto Wrap assumes no warranty as to the installation of its products and will not be held liable for direct, consequential, economic or other damages.

**DEFENSEAL SYSTEM**

DefenSeal Membrane (Liquid)
5 gallon pail (24 pails per pallet)
1 gallon pail (1 pail per case / 24 pails per pallet)

DefenSeal Reinforcing Fabric
3' x 75' roll (225 sq ft) Fabric
6" x 75" roll Fabric

Protecto Wrap is a member of the following trade organizations: