

WP-980

WATERPROOF & CRACK ISOLATION MEMBRANE

■ PRODUCT DESCRIPTION

WP-980 is a thin, flexible, load bearing waterproofing system which consists of an elastomeric latex compound along with a reinforcing fabric that combine to form a seamless waterproof barrier under ceramic tile and stone installations. WP-980 also acts as a crack isolation membrane for these same types of applications.

■ BASIC USES

As a Waterproof Membrane: For use under all ceramic tile and stone installations where a waterproof surface is required. Ideal for all wet areas such as bathrooms, showers, spas & steam rooms, fountains pools, countertops, etc. Suitable substrates include interior or exterior surfaces of concrete, concrete block and masonry, cement mortar beds, cement backer units, existing surfaces of ceramic tile or terrazzo, gypsum wallboard (walls only, in approved application areas only) and exterior-grade plywood (for interior residential floors and countertops in dry areas only).

As a Crack Isolation Membrane: For interior use, over shrinkage or non-structural in-plane cracks up to 3 mm (1/8"). Ideal for use over concrete or concrete-based underlayments, and to cover plywood and concrete backer unit joints.

■ COMPOSITION AND MATERIALS

A two component system consisting of an elastomeric latex compound and reinforcing fabric. Designed for optimum adhesion to most tile-setting substrates.

■ FEATURES

- With *Flexfresh™* technology. Revolutionary technology that helps to inhibit the growth of mildew, fungus and other bacteria causing odours and stains in construction materials.
- Exceeds ANSI A118.10 and ANSI A118.12 standards.
- Interior and exterior waterproofing tile installation applications.
- Bridges shrinkage cracks or other non-structural in-plane cracks up to 3 mm (1/8").
- Easy to apply - just roll or brush on.
- Fast curing - flooring can be installed in 1 - 2 hours.
- Cleans up with water while still wet.
- Low odor & solvent free.
- Rated as suitable for Extra Heavy service on concrete substrates per ASTM C627-70

■ TECHNICAL DATA

Exceeds ANSI A118.10 and ANSI A118.12 standards.

Typical Physical Properties

Tensile Strength:	7 D dry / 21 D wet: 3.9 MPa (562 psi)
Elongation:	7 D dry / 21 D wet: 657 %
Permeability:	0.3 perms
ASTM E96 / E96M-05	17 (ng/Pa-s-m ²)
Procedure B	
Water Vapour Transmission	0.167 g/h-m ²
ASTM E96 / E 96M - 05	
Procedure B	
Low Temp. Crack Bridging:	no cracks
Hydrostatic Resistance:	Pass

Strength - ANSI A118.10

Shear Strength @ 28 day:	2.4 MPa (355 psi)
@ 100 day water immersion:	1.3 MPa (194 psi)
Seam Strength:	10.2 lb/in width
Breaking Strength:	2.8 MPa (401 psi)
Dimensional Stability:	0.70% length change
Damp-proofness:	Pass
Fungus 7 Micro	
Organism Resistance:	Pass
Colour:	Blue in liquid form, Black when cured
Cleanability:	With water while still wet
Storage:	Store in cool, dry place. Protect from freezing.
Shelf Life:	1 year in unopened container stored in heated conditions

Approximate coverage (20 L. size):

Waterproof Membrane: 20.5 m² (220 ft²)
 Crack Isolation Membrane: 27.9 m² (300 ft²)
 (without final sealer coat)

• Coverages listed are for estimating use only. Actual coverages may vary depending on job site condition.



LEED Points Contribution	LEED Points
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants	1 point
IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems	1 point

*May be eligible

LIMITATIONS

Not for use as an exposed traffic surface. Do not expose uncovered membrane to traffic, water or direct sunlight until fully cured. Not recommended for use as a roofing membrane over occupied areas, or on unstable surfaces such as chipboard, Masonite, metal, etc. Not recommended under negative hydrostatic conditions. Do not use where excessive substrate moisture and/or where negative hydrostatic pressure exists. Maximum allowable moisture is 1.36 kg/92.9 m² (3 lb/1000 ft²) per 24 hours. When using as a crack isolation membrane, do not cover existing control or expansion joints - refer to appropriate detail for installation over these joints in current editions of TTMAC or TCNA Ceramic Tile Installation Handbooks. Contact Flextile's technical department for detail recommendations for Movement Joints when applying as an integral waterproofing layer. Not for use over structural movement cracks. Use only on surfaces which are maintained above 10°C (50°F) during application and for at least 48 hours after application.

PREPARATORY WORK

All surfaces must be clean, even, dry and free of grease, oil, loose paint, curing compounds or sealers, protuberances that may puncture cured membrane, or other foreign matter. Existing concrete surfaces which have been shot blasted, ground or sanded to remove contaminants must be thoroughly cleaned of dust, loose concrete, etc. prior to applying membrane. Surfaces should be maintained at a temperature between 10°C (50°F) and 32°C (90°F) when applying membrane. New concrete surfaces must be fully cured, dry (maximum allowable moisture is 1.36 kg/92.9 m² (3 lb/1000 ft²) per 24 hours) finished to a wood float or light broom finish, and be true to within 6 mm (1/4") in 3 m (10').

Apply a latex modified scratch coat consisting of Flextile 57 Scratch Coat Mortar mixed with Flextile 43 or 44 Latex Additive to existing concrete surfaces where abrasion cannot produce a porous enough surface, to uneven surfaces, and to all smooth-troweled concrete surfaces prior to applying WP-980 membrane.

Gaps in pipe penetrations should be packed with compressible backer rod and urethane-based sealant. Pre-treat all control joints and gaps in corners and coves that are greater than 1 mm (1/32") with proper filler material and allow to cure. Fill all openings and spaces around drains and pipes with foam backer material and urethane sealant. Remove drain flanges and apply liberal coat of WP-980 over and around the drain flange. Apply liberal coat of WP-980 around pipes. Allow to dry then apply a second liberal coat. Allow to dry. Apply bead of urethane sealant around drain flange, pipes or other penetrations, to join with the WP-980 system seam. All construction, expansion and isolation joints designed

into the substrate must be carried through the tile installation. Refer to appropriate detail for installation over these joints in current editions of TTMAC or TCNA Ceramic Tile Installation Handbooks, or **contact Flextile's technical department for detail recommendations for all Movement Joints when applying as an integral waterproofing layer.**

APPLICATION - WATERPROOF MEMBRANE

WP-980 is pre-mixed and ready to use. WP-980 may be applied by brush or roller. Pre-treat all cracks, joints, corners and coves first by applying a generous coat of WP-980 latex compound approximately 10 cm (4") to each side of joint or surface, then embed a 15 cm (6") sheet of reinforcing fabric into the wet latex compound so that the latex bleeds through fabric. Next, apply another coat of latex compound on top of fabric so that fabric is completely covered. Allow drying to the touch.

Apply a generous coat of WP-980 latex compound to entire surface, including pre-treated joints, corners and coves. DO NOT skimp on initial coat of latex compound. Place and embed fabric into the wet latex compound using a roller or brush to smooth out any wrinkles. The latex should bleed through the fabric. Fabric must be lapped at seams by at least 5 cm (2"). Once fabric has been properly laid, apply a second coat of latex compound to completely cover the fabric. Allow to dry to the touch. Next, apply a final coat of WP-980 latex compound to entire surface within 24 hours to seal the installation. Once entire installation turns black and is dry to the touch (approximately 1 - 2 hours), tile may be installed using approved Flextile Latex Portland Cement Mortars. (See curing and tile installation)

APPLICATION - CRACK ISOLATION MEMBRANE

Use WP-980 to treat shrinkage and other minor cracks up to 3 mm (1/8") in concrete accepting ceramic tile or stone installations. All construction, expansion and isolation joints designed into the substrate must be carried through the tile installation and should not be covered by WP-980 when using as a crack isolation membrane. Refer to appropriate detail for installation over these joints in current editions of TTMAC or TCNA Ceramic Tile Installation Handbooks.

Measure and pre-cut fabric to cover entire length of crack and at least 1 tile width of each side of crack (20 cm (8") minimum). For cracks greater than 1.5 mm (1/16") and up to 3 mm (1/8"), pre-cut 2 measurements of fabric.

For cracks up to 1.5 mm (1/16"), apply a generous coat of WP-980 latex compound slightly wider than the fabric to be used over crack, with a brush or roller. Embed reinforcing fabric into wet latex compound with a roller or brush so that latex bleeds through fabric. Once fabric is thoroughly embedded, apply a second coat of latex compound and allow to dry. For cracks up to 3 mm (1/8"), embed a second layer of fabric into topcoat of latex compound while still wet, until latex bleeds through fabric. Once second layer of fabric is thoroughly embedded, apply a final coat of latex compound to entirely cover the fabric. Tile installation may commence once WP-980 has dried to the touch and turned black. (approximately 1 - 2 hours).



■ CURING AND TILE INSTALLATION

Final coat of WP-980 must be dry to the touch and black in color prior to installation of tile flooring. Approximate drying time is 1 - 2 hours at 20°C (70°F) with 50% Relative Humidity. Flood tests are required prior to installing finished flooring surface in critical installations. WP-980 should be cured for at least 24 hours at room temperature prior to conducting flood test. For tile and stone installations use appropriate Flextile latex-modified mortars (ANSI A118.4- 1992). Refer to Flextile's product data sheets and current TTMAC or TCNA installation handbooks for product recommendations and installation procedures.

■ SAFETY

Refer to Flextile Safety Data Sheet for detailed health and safety information.

■ AVAILABILITY

WP-980 is available from Flextile Ltd. and listed distributors in units consisting of 1 - 20 L (5.3 U.S. gallon) pail of latex compound, and 1 - 23.2 m² (250 ft²) roll of reinforcing fabric, or 1 - 4 L (1.06 US gallon) pail of latex compound and 1 - 4.7 m² (50 ft²) roll of reinforcing fabric.

■ WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextile's liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. Extended project warranties are available for WP-980. Contact Flextile Ltd or its distributors.

■ MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

■ TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

■ RELATED REFERENCES

Current editions of TTMAC 09 30 00 & TCNA Ceramic Tile Installation Manuals.

■ RECOMMENDED USES

- waterproofing ceramic tile or stone installations
- commercial or residential use
- interior or exterior pools, fountains, etc.
- steam showers, tubs, shower pans
- vertical or horizontal applications
- exterior ceramic tile cladding
- over concrete or masonry surfaces
- over concrete backer units
- on exterior decks or balconies
- over plywood or gypsum wallboard
- over existing ceramic tile surfaces
- over in-floor heating systems
- over floor leveling systems
- over shrinkage or other non -structural cracks in concrete substrates
- over CBU or plywood sheet joints

Interior use only

Some gypsum-based leveling systems may not be acceptable. Check with Flextile Ltd. Refer to TTMAC 09 30 00 detail 325F-2002 detail for exterior decks

■ NOT RECOMMENDED

- as an exposed traffic surface
- as an exposed membrane surface
- as a primary roofing membrane over occupied areas
- for use under negative hydrostatic conditions
- over existing expansion or control joints
- over structural movement cracks
- over metal, particle board, chip board or other surfaces considered unacceptable for ceramic tile or stone installations



Notice: The information herein is the best information we have relating to our products and the recommended uses of our products are based on tests believed to be reliable. Flextile warrants each of its products is of merchantable quality and suitable for the purpose for which it is intended BUT DOES NOT MAKE ANY OTHER WARRANTY, EXPRESSED OR IMPLIED. This Warranty may not be enlarged or extended by our sales representatives, written sales information or drawings. Liability of Flextile under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. All advice given and structural specifications supplied by Flextile representatives shall be used at the sole risk of those receiving the same and Flextile assumes no responsibility for the design or construction of any works in which its products are used. Any review or inspection of plans, buildings or product applications by Flextile representatives is not to be construed as approval thereof by Flextile. This information supersedes all previous issues and is subject to change without notice.