

### DESCRIPTION

PROFLEX™ MAXXIM SIM 90 is a 90 mil composite underlayment consisting of a rubberized membrane laminated to a high strength reinforcing fabric on the face and a release sheet on the adhesive side.

### TYPICAL USE

PROFLEX™ MAXXIM SIM 90 is specially designed to be used under approved thinsets, mortars, and adhesives for interior and exterior applications of ceramic tile, stone, and brick, and for interior applications of wood flooring to eliminate the transmission of cracks and to reduce sound transmission. Other applications also may be suitable. Contact Technical Support for further information. To eliminate cracks in finished floor work, the product should be applied to the entire substrate prior to the installation of the finished flooring.

### ADVANTAGES

- Easy and fast to install with standard tools
- Ready for tiling immediately after installation
- Crack and joint isolation up to 3/8"
- Moisture Vapor Protection up to 5#-1000sqft-24hr-CaCl test (see installation instructions)

### SUITABLE SUBSTRATES

- Concrete • Cured Mortar beds • Cement terrazzo
- Exterior-grade plywood • Cement backer board
- Other Substrates: Contact Technical Support for additional information.

### PACKAGING AND COVERAGES

PROFLEX™ MAXXIM SIM 90  
100 sq ft/roll, 20 rolls/pallet

### COMPANION PRODUCTS

- PR-series Primer • RST- Seaming tape • PIB – Isolation Barrier.

### MEMBRANE SHELF LIFE

PROFLEX™ MAXXIM SIM 90 : Factory-sealed containers of this product are to be of first quality for one (1) year if stored at temperatures between 40 °F and 95 °F.

Phone: 877-5PROFLEX  
(877-577-6353)

Web: [www.proflex.us](http://www.proflex.us)

### TECHNICAL DATA

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>RESULT</u>
Total thickness		90 mil
Fabric thickness		6 mil
Elongation	ASTM D882	350% min
Tensile MD	ASTM D1682	1270 psi
Pliability	ASTM D146	Pass-25
Adhesion to plywood	ASTMD1790	8 lb/in
Adhesion to primed concrete	ASTM D903	10 lb/in
Impact insulation	ASTM E989-89	71
	ASTM E492-90	
Sound Transmission	ASTM E90-02	66
Robinson test	ASTM C627	Heavy-duty

Sound testing performed as to ASTM E90-02, E989-89, and E492-90, test conducted on 8" concrete slab with acoustic ceiling.

### CAUTIONS AND LIMITATIONS

- Substrate must be primed with PROFLEX™ Primer.
- Proflex shall be installed in compliance with the most current edition of the following publications: Proflex Installation Instructions, ANSI (American National Standards Institute) TCNA (Tile Council of North America) handbook for ceramic tile Installation, MIA (Marble Institute of America) Dimension Stone Design Manual .
- Proflex requires consultation with your selected manufacturer of Thinsets, Mortars, and adhesives to ensure selected product is suitable for use with Proflex elastomeric membranes.  
**Mortars should be at a minimum ANSI 118.11 specification.**
- Not for use over expansion joints (structural design joints) or structural (out-of-plane) movement cracks. Use of this product does not eliminate the need for movement joints, including perimeter joints within the tiled surface. Perimeter expansion of 1/4" minimum must be maintained for warranty. Movement joints shall be installed within the industry standards in the publications listed in point 2 of the Cautions and Limitations section of this publication.
- Not recommended for use on concrete floors when hydrostatic pressure is present. Proflex recommends testing the substrate prior to installation of product using a Calcium-Chloride (CaCl) test kit, and /or concrete test for relative humidity (Rh)
- Impervious tile (less than 0.5% absorption) may require a 48-hour cure prior to grouting. The mortar will be sandwiched between two nonabsorptive materials and will require additional cure time.
- Cooler weather will also increase set time.
- Protect Primers from freezing.

**SEE REVERSE SIDE FOR  
INSTALLATION INSTRUCTIONS**



## Application Instructions:

Proflex™ elastomeric membranes, when properly installed in accordance with the following installation guidelines, will provide years of protection for finish flooring installations. In addition to these instructions, installers shall also refer to the most current edition of the following publications: American National Standards Institute (ANSI) publications. Tile Council of America (TCA) Handbook for Ceramic Tile Installations The Marble Institute of America (MIA) Dimension Stone Design Manual. Manufacturers instructions of selected setting materials, substrates, sub-floors, or other manufacturers being used in the total, or any part of, an installed flooring system with Proflex™. Consult your selected manufacturer of these above mentioned components to ensure selected products are compatible with Proflex™ elastomeric membranes. Or visit our website at [www.proflex.us](http://www.proflex.us) and click to our link listing our approved setting materials that have been approved for use with Proflex

**Exclusions:** Proflex™ should not be installed without contacting technical support for including, but not limited to, the following conditions: Expansion or structural design joints in concrete slabs, Out of plane, or structural movement cracks. Horizontal cracks that exceed 3/8 (10mm) Areas where moisture vapor or hydrostatic pressure exceeds 5#-1000sqft-24hrs, as tested using a Calcium Chloride (CaCl) test. Substrates installed not in compliance with industry standards. Substrates that have not been approved by Proflex in this document, or by written authorization from a Proflex representative.

## Surface Preparation of selected substrates:

**Concrete Substrates** Concrete shall be in place a minimum of 28 days. Concrete shall be installed in compliance with industry standards, and concrete manufacturer's instructions. The surface shall have a smooth finish and be free from voids, sharp protrusions, and loose aggregate. Substrate temperatures should be between 40°F and 90°F. Concrete shall be structurally sound, dry, clean, and free of dirt, oils, grease, loose peeling paint, concrete sealers or curing compounds, cement laitance, and other similar bond inhibiting materials.

Rough or uneven surfaces should be made smooth with a Latex Portland cement underlayment to provide a wood float or better finish. Do not level with asphalt based products. Concrete should be tested for both moisture vapor transmission and hydrostatic pressure, by use of a Calcium-Chloride (CaCl) test. Consult technical support if test readings indicate a reading greater than 5 # per 1000sqft-24hours. Existing joint openings larger than 3/16" must be prepared and filled with an approved caulking or sealant prior to the application of Proflex.

**Plywood Substrates** Plywood must be a minimum of two (2) layers 5/8" exterior grade plywood. Plywood shall be securely fastened in accordance with industry standards. Maintain a 1/8" gap between plywood sheets and all surfaces they abut. Joints in the top layer should be offset from the joints on the bottom layer. It is the responsibility of the installer to verify the deflection of the floor structure and sub-floor does not exceed L/360 of the span under combined live or dead loads. The substrate should be tested for both moisture vapor transmission and hydrostatic pressure, by use of a Calcium-Chloride (CaCl) test. Consult technical support if test readings indicate a reading greater than 5 # per 1000sqft-24hours

**Other Substrates** All other substrates and or sub-flooring systems shall be installed in a manner approved by both the product manufacturer and using an appropriate installation method as recommended in the most current edition of the publications mentioned in page 1, of Application Instructions. Concrete Patching and Leveling compounds should be applied only after a consultation with Proflex technical staff. (1-877-577-6353) or at [technical@proflex.us](mailto:technical@proflex.us) Substrates should be tested for both moisture vapor transmission and hydrostatic pressure, by use of a Calcium-Chloride (CaCl) test. Consult technical support if test readings indicate a reading greater than 5 # per 1000sqft-24hours.

## Installation of Proflex Membranes:

**For floors, interior applications, Ceramic Tile, Porcelain Tile, Marble or Stone, engineered wood, hardwood floors.**

**Priming:** Stir or shake Proflex™ Primer thoroughly. Apply primer with a long nap roller, brush, or spray application. Apply evenly at 300-400sq.ft. per gallon, with 100% surface coverage. The Proflex™ Primer has dried satisfactorily (20min – 45min) when the surface is tacky, but does not transfer when touched. (Note: The primer does not serve as an adhesive, over-application of the product will increase drying times and may compromise the overall bondability of Proflex™ membranes to the substrate)

**Membrane Application:** If Proflex is to be used as a vapor barrier, apply Rubber Seam Tape ( Proflex™ RST) beneath all seams, after the surface has been primed. The 4" rubber seam tape should be centered under every seam. The RST will need to be pre-positioned and installed prior to the installation of the Proflex membrane. Place Proflex™ Membrane with release paper still attached over the area to be treated. Unroll the membrane and cut leaving a 2"-3" excess at one end.

**Method 1:** Fold membrane lengthwise. Peel ½ of the release paper from the leading edge of the membrane and slowly pull the release paper toward you, exposing the tacky surface of the membrane and carefully attaching the membrane onto the primed surface, avoiding wrinkles and bubbles.

**Method 2:** Roll up ½ of the membrane, leaving the other half unrolled. Cut the release paper from the portion of the membrane and slowly pull the release paper toward you, exposing the tacky surface of the membrane and carefully attaching the membrane onto the primed surface, avoiding wrinkles and bubbles. Repeat the procedure with the unrolled portion of the membrane.

**Additional Instructions on membrane application:** For full coverage application, carefully butt edges (overlapping will cause the floor to become uneven, but not affect performance). Immediately after installation, apply firm pressure to insure good contact with the surface. Work from the center of membrane to the edges. Bubbles and wrinkles should be slit with a razor type blade and flattened smooth. Protect exposed membrane and companion products from dirt, traffic, and harmful elements until flooring is installed, grouted, and cured.

**Setting Materials** All mortars and thin-sets must meet or exceed ANSI 118.11. Urethane Wood adhesives may be used for wood installations, consult manufacturer for product suitability and approval for use with Proflex elastomeric membranes Consult selected mortar or thin-set manufacturer for product suitability and approval for use with Proflex elastomeric membranes Use appropriate notched trowel for application of setting materials in compliance with ANSI, TCNA, MIA, NWFPA, and setting materials guidelines and recommendations. Visit our website at [www.proflex.us](http://www.proflex.us) and click to our link listing our approved setting materials that have been approved for use

**Finish Surface Installation** Apply finish flooring in compliance with the publications listed in page 1 under installation instructions, for methods of installation over crack-isolation membranes. Do not install any defective, damaged, or any finish flooring surface not for its intended use. The installation of this product does not eliminate the need for movement joints, including perimeter joints with a tiled surface. Perimeter expansion of ¼" must be maintained at all times. Use Proflex PIB (Perimeter Isolation Barrier) to assist in maintaining the expansion gap. **Consult the TCNA handbook for other movement joint applications.** The product is not for use over expansion joints, or structural (out –of –plane) movement cracks.

**Health and Safety:** Read before use. Refer to MSDS for additional information

**Caution:** May cause slight irritation. Contains: Asphalt CAS# 8052-42-4, Petroleum Oil CAS# 64742-04-7, Styrene Butadiene Polymer CAS# 90003-55-8, Proprietary ingredient, polyester fill. Repeated skin contact with rubberized asphalt may result in slight irritation. Avoid prolonged or repeated exposure to skin. Eye contact with residue on hands may cause irritation.

**Discharge and Disposal** Waste from this product is not defined as hazardous. Dispose of waste in accordance with applicable Federal, State, and Local Regulations.

## Information

For additional information contact Proflex™ Products Inc.  
1-877-5 PROFLEX, or [www.proflex.us](http://www.proflex.us)