S-9000 WATERPROOF AND CRACK ISOLATION LIQUID MEMBRANE

PRODUCT DESCRIPTION:
S-9000 is an easy to apply liquid membrane that can be used for crack isolation and/or waterproofing. S-9000 meets or exceeds the requirements of ANSI A118.10 and 118.12 for load bearing, bonded, waterproof membranes for thin-set ceramic tile and dimensional stone installations. S-9000 can be used vertically, horizontally, interior or exterior. S-9000 consists of a liquid polymer binder and a fiber mesh reinforcing fabric. It is easy to apply with a trowel, paint roller or brush. After proper installation and curing, ceramic tile can be installed over S-9000 with a Summitville latex modified mortar or epoxy mortar. S-9000, when properly applied and cured only increases the thickness of the floor installation approximately 20 mils or twenty thousandths of an inch. S-9000 is rated for Extra Heavy Traffic per ASTM C627/TCNA(Tile Council of North America). S-9000 is formulated with a special color indicator which lets the installer know when the system is cured and ready to re-coat or apply tile. In the liquid stage, S-9000 is light pink. S-9000 is orange/red in the cured state. S-9000 will bond to concrete, plywood, CBU, gypsum board, clean tile and stone surfaces. S-9000 contains no organic solvents or harsh fumes, is safe and non-flammable.

USES:
Waterproofing – S-9000 can be used in both commercial and residential applications of:

- Interior or exterior use
- All wet areas
- Bathrooms and showers
- Kitchens
- Countertops
- Steam rooms, spas and hot tubs
- Laundry rooms
- Fountains and water displays

Crack Isolation Membrane

- Interior and exterior use
- Wherever hairline cracking in substrate occurs – for in-plane movement only
- For use over shrinkage and other non-structural cracks up to 1/8”
- Malls and lobbies
- Slab on grade commercial and residential
- Exterior grade plywood and CBU joints
- Over Concrete floors and underlayments

LIMITATIONS:
S-9000 is intended to be a chemical-resistant membrane for some materials. For heavy chemical proofing, use Summitville S-40, 41, 45 system. S-9000 is not approved to replace expansion joints or for use over structural movement cracks. Surface and ambient temperatures must be above 45ºF and maintained above 45º F for a minimum of 24 hours after installation. S-9000 is not intended as a wearing surface. Protect cured membrane from sun and weathering by covering with final surface covering(s). Not recommended for use over plywood in exterior areas or interior wet areas unless interior wet areas are exterior grade plywood or better. S-9000 liquid should be protected from freezing in storage or in transit. S-9000 is not to be used as a barrier against sub-slab hydrostatic pressure or as a vapor barrier. New concrete slabs must be cured a minimum of 14 days before application. In Addition, S-9000 must not be

installed over slabs that exceed 5 lbs. of moisture vapor /1000 square feet/24 hours per ASTM F-1869 or 75% relative humidity as measured per ASTM F-2170 using a properly calibrated and in certification moisture probe meter. Not for use under plaster. S-9000 is to be placed over self leveling underlayments, as such materials rely upon bonding to concrete for stable support. The required and expected deflection/deformation abilities of elastomeric membranes do not supply adequate support for a thin coating of underlayment that cannot support itself. Obtain approval by local building code authority before installing product in areas under plumbing code jurisdictions.

INSTALLATION:

Pre-cut the reinforcing fabric allowing 2" (5 cm) for overlap at ends and sides. Extend fabric 6" (15 cm) through door openings. Pre-cut and roll up the fabric so that each piece can be placed when ready.

Reinforce joints. Spread a layer of waterproofing liquid at joints and cracks. Imbed a 6" (15 cm) wide strip of reinforcing fabric into the liquid. Spread a coat of liquid over the fabric to seal it.

Flash coves. Spread a layer of S-9000 liquid in coves. Imbed a 6" (15 cm) wide strip of reinforcing fabric and allow 4" (10 cm) of the fabric to be flashed up walls. Spread a coat of liquid over the fabric to seal it. Flash the fabric and waterproofing liquid into any drains and around all projections. Reinforcing fabric required for all crack isolation applications.

ANTI-FRACTURE MEMBRANE:

1. **Crack treatment.** Clean and fill all cracks greater than 1/16" (1.5mm) with a scratch coat of S-2000 latex Portland cement mortar and allow to cure.
2. Spread a layer of S-9000 waterproofing liquid on crack.
3. While the surface is still wet, unroll a pre-cut piece of fabric into the liquid. Use a brush or the flat side of a trowel to imbed the fabric and smooth out any wrinkles. As the fabric is imbedded, the liquid must bleed through. If treating as single crack isolation, imbed a strip of reinforcing fabric into the liquid. Strip must be wide enough to meet or exceed compliance to the appropriate TCNA elevation F 125. If treating the area, install precut fabric pieces across area.
4. Overlap fabric 2" (5 cm) at any/all seams.
5. Spread a coat of liquid over the fabric to seal it. Use a paint roller or brush to apply a liberal coat of S-9000 liquid to the floor and/or wall slightly wider than the fabric width. Include joints and coves, all of which have been reinforced previously.
6. Allow area to dry to red/orange color.
7. Make a final application of liquid to the entire surface.
8. Allow to dry.
9. Continue to follow F-125 requirements.

S-9000 contains special indicator pigments that change from pink when wet to red/orange when dry. Initial coats dry in 2 to 3 hours at 70ºF and 50% RH. Cooler temperatures or high humidity will require longer cure times. Ceramic tile and other hard surface finishes may be installed directly over the membrane as soon as the last coat is fully cured. Summitville recommends 12 hrs. minimum before tile installation. Install tile with Summitville's S-1000, S-1100, S-2000, S-777/800 or S-777/810 Latex Thin Set Mortars S-1200 Medium Bed Mortar or S-300, S-400, S-500, S-600, S-4500 or S-5000 epoxy adhesives.

Flood test

Allow membrane to cure fully, 7 days at 70ºF (21ºC). Cold weather installations will require a longer cure time. Flood test installation for 24-48 hours before setting tile to insure no water penetration. Flood test critical installations such as docks, fountains, and showers before covering S-9000 with surface treatments to check for leaks from the underside of the installation. During the course of the test, the surface of the S-9000 may turn slightly pink. This is normal for the water sensitive pigment. This is only the pigment coloration and not an indication of problems with the S-9000. S-9000 will not revert once cured.

EXPANSION AND CONTROL JOINTS WITH WATERPROOFING:

Summitville's S-9000 is not intended to bridge or alter joints in substrate which experience dynamic movement such as expansion and/or contraction, isolation and construction joints. The integrity and alignment of expansion and isolation joints must be carried through the entire tile installation. Existing joints in concrete sub floors must be honored with the waterproof membrane by tucking the layers of

liquid, fabric, and then liquid membrane into joint. Then continue honoring the joint through setting bed and surfacing material. All movement joints shall conform to architectural details, ANSI A-108, TCNA elevations, and any other governing specifications such as local codes, ICC, IBC, and the like. Movement joints shall be installed where tile/paver abuts restraining surfaces and directly over cold joints and control joints in structural surfaces and shall conform to all requirements as above. Movement joints shall be raked or cut through the setting bed to the membrane tucked into joint in the supporting sub-slab or structure.

TECHNICAL DATA: PHYSICAL PROPERTIES OF CURED MEMBRANE

Membrane	
Service temperature	-20ºF to 280ºF
Fungus and mold resist	Does not support growth
Seam strength (ASTM D-751)	25 lb./inch
Breaking strength (ASTM C-752)	>200 psi
Dimensional stability (ASTM D-1204)	<0.5%
Waterproof (ASTM D-4068 Annex A2)	Pass
Elongation (ASTM D-751)	60%
Shear Strength (ASTM C-482)	
7 day	130 psi
4 week	130 psi
12 week	130 psi
Water immersion	
7 day	80 psi
100 day	60 psi
Chemical Resistance (90 day immersion) @ 73 °F	
10% HCL solution	Recommended
3% NaOH solution	Intermittent
Brine solution	Recommended
Saturated sugar solution	Recommended
Calcium chloride	Recommended
MEK	Not Recommended
Milk	Recommended
Beer	Recommended
Urine	Recommended

PACKAGING AND APPROXIMATE COVERING:

Available in:
1-gallon units (37.5 to 41.6 sq. ft.),
6-gallon units (225 to 250 sq. ft.)
54-gallon units (2025 to 2250 sq. ft.).

COLOR:

#998 Red only.

SPECIFICATIONS:

Material: A polymer liquid applied crack isolation/waterproof membrane shall be S-9000 as manufactured by Summitville Tiles, Inc., Summitville, Ohio. The material shall meet or exceed the requirements of ANSI A118.10 and A 118.12.