



HYDRO GUARD SP-1

FAST-DRYING ELASTOMERIC WATERPROOF
AND CRACK ISOLATION MEMBRANE

- Low VOC, Meets SCAQMD Rule 1113 when using Parex USA Non-VOC Colorants.
- Built-in antimicrobial for mold and mildew resistance at the substrate
- Water (flood) test after 4 – 6 hour cure (70° F, 50% R.H.)*
- Thin section that does not interfere with elevations
- Bonds directly to metal, PVC, stainless steel and ABS drains
- Interior or exterior
- Adheres to all common surfaces
- Installs quickly; cures in 2 – 4 hours (70° F, 50% R.H.)*
- Fast-drying; foot traffic in 2 – 4 hours*
- Exceeds ANSI A118.10 and A118.12 membrane requirements
- Easy to use; can be applied by trowel, airless sprayer, paint brush and roller
- May be turned up for base flashing and applied to walls for wainscot or shower wall application
- Crack isolation up to 1/8"



1. Product Name

Hydro Guard SP1

2. Manufacturer

Parex USA, Inc.

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3. Product Description

Basic Use

Merkrete Hydro Guard SP-1 is a fast-drying, thin, load-bearing waterproof and crack isolation membrane composed of modified elastomeric copolymers. With excellent elongation, adhesion and strength properties, Hydro Guard SP-1 provides a 100% waterproof membrane that limits the transfer of substrate cracks to the finished ceramic or stone tile surface. Hydro Guard SP-1 is installed in a liquid state and can be applied to practically any form or irregular shape forming a monolithic waterproof barrier.

Uses

Hydro Guard SP-1 is for use in commercial buildings, residential housing and other areas requiring positive waterproofing like pools, fountains, spas, hot tubs, kitchens, countertops, balconies, tub surrounds, shower stalls and pans, under terrazzo, quarry, ceramic and stone tile. This membrane can be installed over any sound substrate, vertically or horizontally, interior and exterior.

Suitable Substrates

- Brick masonry
- Cement backer board for interiors only¹
- Cement mortar beds
- Cement terrazzo
- Ceramic and stone
- Concrete
- Exterior-grade plywood²
- Gypsum drywall²
- Gypsum mortar bed³
- Oriented strand board²

¹ Consult the cement backer board manufacturer for installation recommendations and to verify acceptability for exterior uses

² Interior use only

³ Requires the use of 101 Overspray primer



4. Technical Data

Merkrete Hydro Guard SP-1 meets or exceeds tile industry requirements: ANSI A118.10 load-bearing, bonded waterproof membrane for thin set ceramic tile and dimension stone installation, also ANSI A118.12 crack isolation membrane for thin set ceramic tile and dimension stone installation. Follow ANSI 108.13 and ANSI A108.17 for installation, in addition to these directions.

Approvals

ICC Evaluation Report ESR-2619
IAPMO / UPCc File #4073
City of Los Angeles, Department of Building and Safety, Research Report #RR-4321

Physical & Test Data	Hydro Guard 1	
Adhesion	>250psi	
Elongation	300 - 400%	
Porosity	No transmission (115 psi for one hour)	
Range of temperature for use	40° F to 110° F (at installation) 35° F to 150° F (after installation)	
Water Absorption	0% (Total immersion for 24 hours)	
Drying Time (to touch per layer)*	2 hours at 70° F and 50% R.H.	
LEED 2.2 NC VOC	EQ Credit 4.1	Hydro Guard 2000 Results
VOC	<65g/l VOC	2 g/l VOC

* When cured at 70° F or higher at 50% R.H. Lower temperature at higher R.H. will require longer cure times

Packaging

1-gallon pail (3.78 l): 60 pails per pallet
5-gallon pail (18.92 l): 36 pails per pallet

Shelf Life

Reference Parex USA Expiration Date of Products Technical Bulletin.

5. Installation

Surface Preparation

All surfaces must be between 40° F (4° C) and 95° F (35° C) and structurally sound (deflection not to exceed 1/360 of the span), dry, clean and free from oil, grease, wax, paint, old adhesives, sealers and curing compounds. Any contaminants that inhibit proper bond must be removed. Substrate preparation should be completed following ANSI A108.01 "General Requirements: Subsurfaces and Preparation by Other Trades." All substrates should be plumb and true; surface deviation should not exceed 1/4" in 10'. Patching, leveling or properly sloping of wet or exterior areas requiring a mortar bed should be prepared using Merkrete's underlayment. If product has separated or thickened hard, product should be mixed with a slow mixing drill, not incorporating air. Some separation may occur upon standing, which has no reflection upon the quality of the product.

Reinforcement

Hydro Guard SP-1 has been formulated to perform as a waterproof and crack isolation membrane without reinforcing fabric. As a crack isolation membrane, fabric is typically not recommended. As a waterproof membrane, manufacturer recommends the use of supplied 8" reinforcing fabric to ensure maximum protection at joints, cracks, protrusions, dissimilar materials, and drains. Optionally, 38" fabric is available for easy use on wider areas and, where used, can replace the 8" fabric.

Preparation

Joints, Cracks and Protrusions: Pre-fill all substrate cracks, cold and control joints with Merkrete latex modified thin set or PUC caulking. Fill all voids with Merkrete latex modified thin set to within a minimum of 1/8". Apply a liberal coat of Hydro Guard SP-1 liquid around joints, cracks and protrusions. Embed Merkrete 8" reinforcing fabric into the wet Hydro Guard SP-1, cover with a second coat of Hydro Guard SP-1, "sandwiching" the reinforcing fabric. Apply an additional application to prevent pinholes.

Drains: Drains must be of the clamping ring-type with weep holes for thinset application. Drain should be even, level, plumb and fully supported without movement. Fill all voids with Merkrete latex modified thinset to within a minimum of 1/8" from the drain. Apply a liberal coat of Hydro Guard SP-1 liquid around and over the bottom drain clamping ring. Embed Merkrete 8" reinforcing fabric into the wet Hydro Guard SP-1. Cover with a second coat of Hydro Guard SP-1, "sandwiching" the reinforcing fabric. Make an additional application of Hydro Guard SP-1 to prevent pinholes. After drying, set the upper clamping ring onto the Hydro Guard SP-1 membrane with a continuous bead of Merkrete PUC caulking or similar material. A toilet flange can be treated in the same manner.

Cement Substrates: All concrete substrates should be cured a minimum of 28 days. Smooth steel-troweled floors to a fine broom finish.

Cement Backer Board: Follow cement board manufacturer's instructions. Tape and fill joints per manufacturer's directions and "Preparation" section of this data sheet.

Plywood and OSB Substrates: All plywood installations should be interior areas only and protected from exposure to moisture. Skim coat plywood surfaces with Merkrete latex modified thinset before membrane application.

Membrane Application

Allow any recently prepared areas to dry. Apply a liberal coat of Merkrete Hydro Guard SP-1 membrane at a rate of 50 sq. ft. per gallon. Periodically, check the film thickness with a wet film thickness gauge; first wet coat should be applied 30 mil wet thickness. Apply Merkrete 8" reinforcing fabric into the wet Hydro Guard SP-1. (For UPC compliance, apply Merkrete reinforcing fabric throughout shower pans, overlapping fabric seams a minimum of 2".) After the Hydro Guard SP-1 turns emerald green, cover with a second coat at 30 mil wet thickness, "sandwiching" the reinforcing fabric. Total Hydro Guard SP-1 membrane thickness after drying should be 40 mil.

Movement (expansion) joints: Designed to experience movement, movement joints should be provided to comply with TCA method EJ 171. For waterproofing of movement (expansion) joints, the membrane must not be applied unsupported to bridge across expansion joints. The joint must be cleaned to remove any loose debris and an opened or closed cell backer rod is installed to the joint to the proper depth specified by designer. Merkrete's PUC sealant or Merkrete -approved equal is pressed into the joint, coating the sides and leaving the joint flush with the surface.



After the sealant is dry, the Hydro Guard SP-1 membrane is applied following the "Membrane Application" instructions above. Then ceramic or stone tiles are installed over the membrane, leaving a gap over the joint as specified by the designer. After the tile is set, the joint must be filled as specified by the designer.

Ceramic or Stone Application

Ceramic or stone tile can be installed immediately after the Hydro Guard SP-1 membrane has dried to the touch. Merkrete recommends a quality latex Portland cement thinset like Merkrete Systems 705, 710, 7D10, 720, 735, 750, 801 and 820 mortars. Follow the directions on thinset container for proper application.

Curing

Provide adequate protection for Hydro Guard SP-1 membrane, even if covered with a ceramic or stone tile application, against exposure to rain, or inclement weather for a minimum of 24 hours at 70° F (21° C) and 50% R.H.

Cleaning

Clean tools, hands and equipment with warm soapy water before the material has dried. Material that has dried is difficult to remove, remove while fresh.

Coverage

2-gallon unit: 100 sq. ft.
5-gallon unit: 250 sq. ft.

Limitations

Do not use Hydro Guard SP-1 membrane below 40° F (4° C) or allow membrane or substrate to be below 40° F (4° C) for the first 72 hours after application. Cool and wet weather may delay the set times of the Hydro Guard SP-1 membrane. Do not apply over surfaces subject to hydrostatic pressure. Do not use as a primary roofing membrane. Do not leave Hydro Guard SP-1 membrane unprotected or exposed to weather for more than 30 days. Do not use membrane as an adhesive or wearing surface; membrane must be covered with ceramic or stone tile. Maximum amount of moisture in the concrete substrate using a calcium chloride test should not exceed 5 lbs/1,000 sq. ft.

6. Availability

Merkrete Hydro Guard SP-1 membrane is available at leading tile houses and construction distributors. Contact Merkrete for the name of the nearest dealer.

7. Warranty

5-year, 10-year and Limited Lifetime warranties are available. Contact Merkrete Technical Services or visit our website for specific warranty information. Merkrete Systems warrants that this product meets applicable ANSI standards in force at the time of manufacture.

8. Maintenance

None required, but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

9. Technical Services

Merkrete Systems maintains technical field representatives available throughout the country. Call Technical Services at 800-226-2424 for the nearest representative.

10. Literature

For the most up-to-date technical information (details, submittals, SDS or data sheets), refer to our websites www.parexusa.com or www.merkrete.com.



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