

1. PRODUCT NAME

Hydra-Seal

2. MANUFACTURER

PROFLEX® Products, Inc.
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3. PRODUCT DESCRIPTION

PROFLEX® Hydra-Seal is a thin, load bearing, crack isolation, waterproof membrane, it provides a monolithic transition for crack-isolation and waterproofing applications. The material is installed in a semi-fluid state and can be applied to most shapes or irregular form such as base flashings, walls, etc.

Uses	Advantages	Suitable Substrates
<ul style="list-style-type: none"> • Interior and exterior applications • Swimming pools, fountains and water features (must cover with tile) • Shower pans, stalls and tub surrounds • Industrial, commercial and residential bathrooms and laundries • Spas and hot tubs • Kitchens and food processing areas • Terraces and balconies over unoccupied spaces • Countertops and facades • Steam rooms (when used in conjunction with a vapor barrier) 	<ul style="list-style-type: none"> • Single component Cold applied • Non-flammable • Moisture vapor resistant up to 7lbs. / 1000 sq.ft. / 24 HR CaCl test • Bonds directly to metal, PVC and ABS plumbing fixtures only • Thin; only 40mil thick when fully cured • Changes in color • Anti-fracture protection of up to 1/4" over shrinkage and other non-structural cracks • Exceeds ANSI A118.10 and A118.12 • Safe—no solvents and non-flammable • Install tile, brick and stone directly onto membrane 	<ul style="list-style-type: none"> • Concrete • Concrete & Brick Masonry • Cement Mortar Beds • Cement Plaster • Gypsum Wallboard* • Exterior Grade Plywood** • Ceramic Tile & Stone*** • Cement Terrazzo*** • Cement Backer Board**** • Poured Gypsum Underlayment†

* Interior applications.

** Interior and Exterior

*** If primed with PROFLEX® Super Prime. **(The Super Prime is for interior only. For Exterior use PR27).**

****Consult cement backer board manufacturer for specific installation recommendations and to verify acceptability for exterior use.

† Interior use. Follow TCNA Guidelines/ Methods: F200, RH111, RH122, F180

Packaging

5 gal pail liquid (36 units/pallet)

4 x 1 gal pails of liquid packed in a carton (45 cartons/pallet)

Approximate Coverage

1 Gallon - 80 sq. ft. at 30-35 mil wet film thickness - single coat crack isolation application

1 Gallon - 50 sq. ft. at 20-25 mil wet film thickness - two coat waterproofing application

Shelf Life

Factory sealed containers of product are guaranteed to be of first quality for one (1) year if stored at temperatures >40°F and <90°F

Limitations

- DO NOT bond to OSB, particle board, interior glue plywood, luan, Masonite® or hardwood surfaces.
- Do not use as a primary roofing membrane over occupied space.
- Do not use over dynamic expansion joints, structural cracks or cracks with vertical differential movement
- The installation of Waterproofing Membranes in submerged applications must be installed in a manner that creates a continuous "waterproof pan effect" without voids or interruptions. Must be covered with tile.
- Do not use over cracks >1/4" in width.

- Do not use as a vapor barrier (especially in steam rooms).
- Do not expose unprotected membrane to sun or weather for more than 30 days.
- Do not expose to negative hydrostatic pressure, excessive vapor transmission
- Do not expose to solvents
- Must be covered with ceramic tile, stone, brick, dry pack thick bed mortar beds, terrazzo or other traffic-bearing finish. Use Pro Shield for temporary cover.
- Obtain approval by local building code authority before using product in shower pan applications.
- In waterproofing applications allow membrane to cure fully (typically 48 hours at 50°F – 70°F and 70% RH before flood testing); flood test prior to applying tile or stone.
- Maximum amount of moisture in the concrete/mortar bed substrate should not exceed 7lbs. / 1000 sq.ft. / 24 HR CaCl test per ASTM F-1869
- During cold weather, protect finished work from traffic until fully cured
- For white and light-colored marbles, use a white Latex Portland Cement Thin Set Mortar.
- For green and moisture sensitive marble, agglomerates and resin backed tile and stone use PROFLEX® Epoxy Mortar
- Allow wet mortars to cure for 72 hours at 70°F prior to installing Hydra-Seal.
- Protect from exposure to traffic or water until fully cured.
- Hydra-Seal turns color during curing, do not apply second coat until first coat shade has changed.

Cautions

Consult SDS for more safety information.

4. TECHNICAL DATA

Applicable Standard

ANSI A118.10 and A118.12

Specifications are subject to change without notification. Technical data shown in PROFLEX® product data sheets and technical data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors.

PROPERTY	RESULT
Service Temperature	20 - 270°F
Fire Rating	Passed
Water Permeability	Nothing
Thickness	Applied at 30 mils dry
Shear Bond	325 PSI
Exceeds ANSI A118.10, A118.12 Requirements	
Meets ASTM C-836-89 Requirements.	

Working Properties

Hydra-Seal can be applied using a paint brush, roller, trowel, or sprayer. All areas must have two coats to ensure waterproofing capabilities. Substrate will not be visible through Hydra-Seal if coated with 15 mils of dried membrane.

5. INSTALLATION

Surface Preparation

Surface temperature must be 50 – 90°F during application and for 48 hours after installation. All substrates must be structurally sound, clean and free of dirt, oil, grease, paint, laitance, efflorescence, concrete sealers or curing compounds. Make rough or uneven concrete smooth with a wood float or better finish with an underlayment. Do not level with asphalt based products. Maximum deviation in plane must not exceed 1/4" in 10 ft with no more than 1/16" in 1 ft variation between high spots.

1. Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, brick and similar finishes. Installer must verify that deflection under all live, dead and impact loads of interior plywood floors does not exceed industry standards of L/360 for ceramic tile and brick or L/720 for stone installations, L/600 for all exterior veneer applications where L=span length.

2. Minimum construction for interior plywood floors. SUBFLOOR: 3/4" thick of exterior glue plywood, either plain with all sheet edges blocked or tongue and groove, over bridged joints spaced 16" OC maximum; fasten plywood 6" OC along sheet ends and 8" OC along intermediate supports with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" between sheet ends and 1/4" between sheets edges; all sheet ends must be supported by a framing member.

UNDERLAYMENT

1/2" thick exterior glue plywood or cement backer board fastened 6" OC along sheet ends and 8" OC in the field (both directions) with 8d ring-shank, coated or hot dip galvanized nails (or screws); allow 1/8" to 1/4" between sheets and 1/4" between sheet edges

and any abutting surfaces; offset underlayment joints from joints in subfloor and stagger joints between sheet ends; glue underlayment to subfloor with construction adhesive. Bonding to TCNA Compliant Poured Gypsum Underlayment Poured gypsum-based underlayments must meet TCNA requirements for compressive strength and the performance requirements of ASTM C627 for the anticipated service level designated by the design professional. Poured gypsum underlayment thickness and application varies, consult the manufacturer for specific recommendations. The underlayment must be dry and properly cured following the manufacturer's recommendations to achieve a permanent installation. Surfaces to be covered must be clean, structurally sound and meet the maximum allowable deflection standard of L/360 for ceramic tile and L/720 for stone under total anticipated load. Expansion joints must be installed in accordance with ANSI/TCNA guidelines. Prime all surfaces to receive Hydra-Seal with properly applied manufacturer's sealer or with PROFLEX Super Prime (see SP1 data sheet for instructions). When dry apply two full coats of Hydra-Seal to the primed area following the guidelines in data sheet.

Pre-Treat Cracks & Joints

Fill all substrate cracks, cold joints, and control joints to a smooth finish using PROFLEX® ProStick series thin-set mortar. Hydra-Seal may be used to fill in non-structural joints and cracks, up to 1/4". Apply Hydra-Seal approximately 8" wide over substrate cracks, cold joints, and control joints using a paintbrush or roller (heavy nap roller). Imbed 6" wide PROFLEX Hydra Mesh Fabric into Hydra-Seal.

Pre-Treat Coves and Floor/Wall Transitions

Fill all substrate coves and floor/wall transitions to a smooth finish and changes in plane using a PROFLEX® ProStick series thin-set mortar. Hydra-Seal applied with a paint brush or trowel may be used to fill in cove joints and floor/wall transitions <1/8". Apply a liberal coat of Hydra-Seal approximately 8" wide over substrate coves and floor/wall transitions using a paintbrush or roller (heavy nap roller). Imbed 6" wide PROFLEX® Hydra Mesh Fabric into Hydra-Seal.

Pre-Treat Drains

Drains must be of the bonding flange or clamping ring type, with weeps and as per ANSI A112.6.3. Apply a liberal coat of Hydra-Seal Waterproofing Membrane liquid around and over the bonding flange or the bottom half of drain clamping ring. Cover with a second coat Hydra-Seal. When dry, apply the bonding flange or the bottom half of drain clamping ring. Cover with a second coat Hydra-Seal.

Pre-Treat Penetrations

Allow for a minimum 1/8" space between all vertical assemblies and surrounding ceramic tile, stone or brick. Fill gaps with Backer rod and ProStick series thin-set any gaps around pipes, or other penetrations. Apply 2 coats of Hydra-Seal around penetration openings. When dry, seal flashing with 100% solid silicone sealant.

Crack Isolation (Partial Coverage)

Crack suppression must be applied a minimum of 3 times the width of the tile or stone being installed. The tile installed over the crack cannot be in contact with the concrete. Follow TCNA Method F125 for the treatment of hairline cracks, shrinkage cracks, and saw cut or control joints. Apply a coat of Hydra-Seal, 3 times the width of the tile over the crack using a paint roller or paintbrush and immediately imbed 6" PROFLEX Hydra Mesh fabric into the wet liquid over the crack. Press firmly with brush or roller to allow complete "bleed through" of Hydra-Seal. Immediately apply another coat of Hydra-Seal over the fabric and allow to dry. Dry film thickness should be minimum 15 mil.

Movement Joints / Control Joints

All architectural / engineered movement joints must be honored through finish flooring. Ceramic tile, stone and thin brick installations must include expansion at coves, corners, other changes in substrate plane and over any expansion joints in the substrate. Expansion joints in ceramic tile, stone or brickwork are also required at perimeters, at restraining surfaces, at penetrations and at the intervals described in the Tile Council of North America, Inc. (TCNA) Handbook Installation EJ171 Movement Joint Guidelines.

Waterproofing Application

Allow any pre-treated areas to dry to the touch. Apply a coat of Hydra-Seal at 20-25 mil with brush, roller or sprayer over entire substrate including pre-treated areas. Once first coat is dry, apply a second coat at 20-25 mil. Periodically check applications with a wet film gauge. Let topcoat dry to the touch, approximately 1-2 hours at 70°F and 50% RH. When last coat has dried to the touch, inspect final surface for pinholes, voids, thin spots or other defects. Use additional Hydra-Seal to seal defects. Combined dry film thickness should be minimum 40 mil.

Protection

Provide protection for newly installed membrane, even if covered with a thin bed ceramic tile, stone or brick installation, against exposure to rain or other water for a minimum of 6 hours at 70°F and 50% RH.

Installing Finishes

Once Hydra-Seal has dried to the touch, ceramic tile, stone or brick must be installed by the thin bed method with a modified thin-set mortar meeting ANSI A118.11. Allow Hydra-Seal to cure 4 hours at 70°F and 50% RH before covering with, thick bed mortar, or epoxy adhesives. Do not use solvent based adhesives directly on Hydra-Seal.

Drains & Penetrations

Use a 100% solids silicone sealant and backer rod to seal space between drain or penetration and finish. Do not use a grout or joint filler mortar.

Flood Testing

Allow membrane to cure fully before flood testing. Cold and/or wet conditions will require a longer curing time. For temperatures 50 – 69°F allow 48 hours cure prior to flood testing.

Spray Application

Follow all installation and surface preparation requirements outlined in this document. The sprayer being used for the application of Hydra-Seal should be capable of producing a maximum of 3300 psi with a flow rate of 0.95 to 1.6 GPM using a 0.521 or a 0.631 reversible tip. Keep the unit filled with Hydra-Seal to ensure continuous application of liquid. The hose length should not exceed 100' in length and 3/8" in diameter. Apply a continuous Hydra-Seal film with an overlapping spray. The wet film is lighter in appearance and dries to a darker in color. When the first coat has dried to a uniform color, approximately 45 to 90 minutes at 70°F, visually inspect the coating for any voids or pinholes. Fill any defects with additional material and apply the second coat at right angles to the first. The wet film thickness should be checked periodically using a wet film gauge. Each wet coat should be 20-25 mil. Combined dry film thickness should be minimum 40 mil. Check application thickness with a wet film gauge periodically to ensure that the appropriate thickness and coverage is achieved. To achieve the required film thickness, the coating must be free from pinholes and air bubbles. Do not back roll the spray applied coating. Allow the Hydra-Seal to cure in accordance with the instructions in this document. It is important to note that areas not intended to receive Hydra-Seal should be protected from any potential overspray. Expansion and movement joints should be honored as per the Tile Council of North America, Inc. (TCNA) Handbook Installation EJ171 Movement Joint Guidelines.

Cleaning

While wet, Hydra-Seal can be washed from tools with mild soap and water.

6. AVAILABILITY

PROFLEX® Products are available nationwide.
To locate PROFLEX® products in your area, please contact:
Phone: 877-577-6353
Website: www.proflex.us

7. WARRANTY

For warranty details, visit our website www.proflex.us

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical assistance

Information is available by calling the Technical Support
Toll Free: 877-577-6353
Fax: 863-937-9624

Technical and safety literature

To acquire technical and safety literature, please
visit our website www.proflex.us

10. FILING SYSTEM

Division 9