HYDROSEAL® DECK MEMBRANE & ACCESSORIES

HYDROTECH
A SIKA COMPANY

Tech Data

1. Product Name

HydroSeal® Deck Membrane

2. Product Description

Basic Use

HydroSeal Deck Resin is combined with HydroSeal Catalyst and HydroSeal Fleece reinforcement to form a monolithic, reinforced waterproofing membrane for balconies or terraces, either exposed with an appropriate HydroSeal Finish or concealed with hard set tiles or pavers. Flashing of all terminations and penetrations is accomplished with HydroSeal Flashing resin.

Note for Installers: Reference Hydrotech's HydroSeal "Back-Pocket" Installation Guidelines for additional hints and tips.

Accessories

HydroSeal Catalyst is used as a reactive agent to initiate curing of HydroSeal methyl-methacrylate liquid resins and primers.

HydroSeal Primer-Deck and Primer-Flashing are used as a primers for HydroSeal resins applied over concrete, masonry, wood, asphalt, and other substrates as recommended.

HydroSeal Primer-Metal is used as a coupling agent and primer for Hydroseal resins applied over various metal substrates; i.e., counterflashings, metal pool liners, curtain wall sections, tube steel, metal pipe penetrations, and H-column penetrations.

HydroSeal Fleece is used to reinforce HydroSeal resins cold, fluid-applied, deck and flashing membranes to improve tear strength, puncture resistance, and crack bridging capabilities while maintaining membrane uniformity.

HydroSeal Flashing Resin is combined with HydroSeal Catalyst and HydroSeal Fleece reinforcement to form a monolithic, self-flashing and self-adhering reinforced flashing membrane for all transition and penetration detailing.

HydroSeal Activator can be used to clean existing cured in-place HydroSeal resin membrane and primers that has become dirty at laps, tie-ins, repairs and between staged coats of resin. HydroSeal Activator may also be used as solvent for cleaning metal and plastic surfaces prior to resin application, or for cleaning spills, tools and equipment.

HydroSeal Paste is used for horizontal and vertical leveling, patching, and repairs to substrates in conjunction with HydroSeal resins and Matrix liquid applied flashings.

HydroSeal Mortar is used to provide a traffic bearing coating and base over completed HydroSeal Deck Membrane in preparation to receive a variety of HydroSeal surfacing that will remain exposed.

HydroSeal Finish-Color / HydroSeal Finish-Textured HydroSeal Finishes are used to provide a variety of surfacing options and sealers over completed HydroSeal Deck and Flashing membrane applications.

Tools

Since HydroSeal is typically prepared in small batches on site, it is important to have the following list of tools on hand.

Flashing:
- 1-gallon/5 liter size plastic paint pails with quart/liter markings
- disposable paint brushes and/or small nap foam or lambswool paint rollers
- mixing sticks
- disposable vinyl/rubber gloves
- eye protection
- scissors
- permanent markers (i.e., Sharpies)
- tape measure
- masking tape or painters tape

Deck Membrane:
- variable speed drill and spiral resin agitator/mixer
- mixing pail (5-gallon)
- small nap lambswool paint rollers and extension poles
- notched squeegee

Limitations

HydroSeal materials should be stored out of direct sunlight on the job site and maintained at or near room temperature prior to use.

HydroSeal materials are to be installed when ambient and substrate temperatures are between 37°F and 95°F (3° - 35°C). The temperature of the substrate must be at least 5 degrees higher than the dew point temperature at the time of application.

In service, HydroSeal Deck and Flashing Membranes are not to be subjected to temperatures greater than 150°F (65.5°C).

Composition/Container/Coverages

HydroSeal Deck and Flashing Membranes are high performance two-component, fast-curing, poly methyl-methacrylate (PMMA) resins. Both are supplied in 5 kg or 10 kg re-sealable pails. HydroSeal Deck Membrane resin is also available in 25 kg re-sealable drums. On normal surfaces, each 5 kg unit will cover approximately 16 sqft (1.5 sqm) and each 10 kg unit will cover approximately 32.5 sqft (3 sqm). Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

Approximate coverage rates:
- Smooth substrates: 0.23 kg/sqft (2.5 kg/sqm)
- Normal substrates: 0.31 kg/sqft (3.3 kg/sqm)
- Fine grained substrates: 0.36 kg/sqft (3.8 kg/sqm)
- Rough substrates: 0.40 kg/sqft (4.3 kg/sqm)

Tip: While coverage rates will vary depending on the substrate as noted above, on average:
- *0.31 kg of either HydroSeal resin will cover 1 sqft of normal substrate*
- *1 kg of either HydroSeal resin will cover 3.2 sqft of normal substrate*
- *One 5 kg pail of either HydroSeal resin will cover roughly 16 sqft of normal substrate*
- *One 5 kg pail of HydroSeal Flashing resin will detail approximately 10-15 2" diameter pipes with an 8" tall flashing*

HydroSeal Catalyst is a reactive agent in powder form. It is supplied in pre-measured 2, 5, and 10 kg pails and 25 kg boxes.

HydroSeal Primer-Deck and Primer-Flashing are high performance, poly methyl-methacrylate (PMMA), two-component, rapid curing, resin primers. They are supplied in 5 kg or 10 kg re-sealable pails with locking rings. On smooth surfaces, each 10 kg unit will cover approximately 269 sqft (25 sqm). Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

Approximate coverage rates:
- Smooth substrates: 0.037 kg/sf (0.40 kg/m2)
- Fine grained substrates: 0.046 kg/sf (0.50 kg/m2)
- Rough substrates: 0.074 kg/sf (0.80 kg/m2)

HydroSeal Primer-Metal is a high-performance, solvent-borne, polymer-based, one-component primer. It is supplied in 1 kg cans. Each 1 kg unit will cover approximately 54 – 63 sqft (5 – 5.9 sqm) depending on substrate conditions.

HydroSeal Fleece is non-woven, chopped strand, polyester fabric reinforcement. It is supplied in 8, 14, 20, and 41 inch wide X 164 foot (50 m) rolls. The installer should allow for 2 1/2 - 3 inch (6.4 - 7.6 cm) overlap at side laps, 4 inch (10 cm) overlap at end laps, 4 inch overlap at all flashings, and an additional 5% for waste.

HydroSeal Matrix is a high performance two-component, rapid-curing, flexible poly methyl-methacrylate (PMMA) resin with integral chopped polymer fiber reinforcement. It is supplied in 5 kg or 10 kg re-sealable pails. On normal surfaces, each 5 kg unit will cover approximately 21 sqft (2.0 sqm) and each 10 kg unit will cover approximately 43 sqft (4.0 sqm). Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

Approximate coverage rates:
- 80 mils: 0.23 kg/sqft (2.5 kg/sqm)
- 125 mils: 0.36 kg/sqft (3.8 kg/sqm)

HydroSeal Activator is a clear aromatic blended solvent. It is supplied in a 1-gallon and 5-gallon re-sealable metal cans.

HydroSeal Finish-Color / HydroSeal Finish-Textured HydroSeal Finishes are UV stabilized, pigmented (or clear), high performance, two-component, rapid curing, poly methyl-methacrylate based acrylic finishes.

HydroSeal Finish-Color and Finish-Textured are available in a variety of standard colors. Please reference Hydrotech's HydroSeal Resin Color Finish information sheet.

HydroSeal Finish-Color is supplied in 10 kg resealable drums with locking rings. On normal surfaces, each 10 kg unit of Finish-Color will cover approximately 154 sqft (14.3 sqm) when using 0.4-0.8 mm aggregates and 134 sqft (12.4 sqm) when using 0.7-1.2 mm aggregates.

HydroSeal Finish-Textured is supplied in 15 kg resealable drums with locking rings. Each 15 kg unit of Finish-Textured will cover approximately 90 sqft (8.3 sqm). Yields will vary depending upon system selected and the smoothness and absorbency of substrate.

Approximate coverage rates:
Finish-Color and Finish-Clear
- 0.4-0.8 mm aggregates: 0.06 kg/sqft (0.7 kg/sqm)
- 0.7-1.2 mm aggregates: 0.07 kg/sqft (0.8 kg/sqm)

Finish-Textured
0.17 kg/sqft (1.8 kg/sqm)

HydroSeal Mortar is a high performance, flexible, methyl-methtacrylate based mortar. HydroSeal Mortar is supplied in 15 kg resealable drums with locking rings.

Approximate coverage rates:
- 0.37 kg/sqft (4 kg/sqm)
- Gross Yield (filled Mortar): +40 sqft (3.75 sqm)

Physical Properties/Applicable Standards
While no uniform ASTM standard exists for cold reinforced liquid applied membranes of this class, HydroSeal is manufactured to meet or exceed the performance requirements of ASTM C836/C836M-18 Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course. Side by side quantitative comparison of physical properties between various MMA and other liquid applied membranes can only be made by comparing values derived from the same ASTM test protocols.

Installation

Surface Preparation
General: Acceptable substrates include concrete, masonry, metal, wood/plywood, and cement board. Faced

HydroSeal Flashing Membrane		
Property	**Test Method**	**Value**
Color		Gray
Thickness (avg) @ 0.31 kg/ft^2 coverage rate w/Fleece	ASTM D751 or D5147	≥ 90 mils
Weight (min per 100 ft^2 of coverage)		68 lb.
Peak Load (avg) @ 73°F	ASTM D5147	70 lb. f/in
Elongation at Peak Load (avg) @ 73°F	ASTM D5147 or D412	≥ 35%
Shore A Hardness (avg)	ASTM D2240	≥ 70
Water absorption, Method I (24h @ 73°F)	ASTM D570	0.8%
Water absorption, Method II (48h @ 122°F)	ASTM D570	1.2%
Low temperature flexibility @ 0°F	ASTM D5147	PASS
Dimensional Stability (max)	ASTM D5147	0.15%
Min thickness	ASTM D751 or D5147	90 mils
Tensile Strength @ break	ASTM D5147 or D4073	> 60 lb./in.
Elongation	ASTM D751	> 49%
Tear Resistance	ASTM D751	> 7 lbs.
Water Vapor Transmission	ASTM E96	0.45 Perms
Water Absorption	ASTM D471	<1.5%
Static Puncture	ASTM D5602	≥ 30

and un-faced gypsum board materials, as well as pressure treated and marine grade plywood are not acceptable. All substrates must be free from gross irregularities, loose, unsound or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of the primer and/or resin to the substrate with a maximum moisture content of six (6) percent or 75% relative humidity. Substrates shall be abrasively cleaned or ground as required to provide a sound open abraded surface to provide adhesion of the primer and resins to the substrate with a minimum bond strength of 116 psi (0.8 N/mm2). Determinations of bond strength and moisture content shall be performed periodically by the contractor throughout the course of work.

Concrete: All concrete substrates and concrete repair materials must be cured a minimum of 28 days in accordance with ACI-308, or as recommended by the concrete/mortar manufacturer, in order to achieve a minimum hardness of 3,500 psi (25 N/mm2) with a maximum moisture content of six (6) percent or 75% relative humidity. ***Concrete substrates shall be abrasively cleaned (i.e., shot blast) in accordance with ASTM D4259 to provide a sound substrate free from laitance with an open concrete surface.*** Areas of minor surface deterioration of 0.50 inch (13 mm) or greater in depth, and/or spalls, voids, bug holes and other deterioration on vertical surfaces or horizontal surfaces shall be repaired.

Masonry Construction: Walls shall be built with hard kiln dried brick, reinforced concrete block, or waterproof concrete block construction. Flashings must not be applied over soft or scaling brick or concrete, faulty mortar joints, or walls with broken, damaged or leaking coping. Walls of ordinary hollow tile, or other materials which in themselves are not waterproofed, should not be accepted as suitable to receive flashings unless they are properly waterproofed, to prevent moisture infiltration from above or behind the flashing system.

Steel/Metal: Clean and prepare metal surfaces to near white metal in accordance with SSPC - SP3 (power tool clean). Extend preparation a maximum of 1/8 inch (3 mm) beyond the termination of the membrane flashing materials.

Note: Galvanized and zinc rich metals are typically passivated or coated with oil requiring special preparation. The passivator must be completely removed by mechanical abrasion for HydroSeal Primer Metal to obtain sufficient long-term bond. This can be confirmed by applying a coat of copper sulfate solution to the prepared galvanized metal surface. A properly prepared surface will turn black indicating the passivator has been removed. If the surface does not turn black, additional abrasive cleaning will be required. In certain applications with zinc rich or stainless steel metals, an acceptable pre-primer may be required prior to application of HydroSeal Primer Metal.

Plywood: Plywood shall be 1/2" minimum, CDX exterior grade board identified with American Plywood Association (APA) grade trade marks and shall meet the requirements of product standard PS1. Plywood panels should be installed with no gaps at panel joints. Tongue and groove plywood should be used whenever possible. After coating the exposed top face of the plywood with HydroSeal Primer, fill all voids, board joints, knot holes, cracks and fastener points with a quality urethane sealant or HydroSeal Paste and strip joints with 2-inch (5cm) wide bond breaker tape followed by 6-inch (15cm) minimum wide strips of HydroSeal Resin membrane centered over joint.

Priming

Primer is required on all rubberized asphalt, concrete, wood and metal surfaces.

Note: Consumption and yield or primer will vary depending upon smoothness and absorbency of the substrate.

Asphalt/Concrete/Wood:

- Thoroughly mix the entire container of HydroSeal Primer resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off primer resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
- Catalyze only the amount of material that can be used within 10-15 minutes.
- Add pre-measured catalyst to the primer resin component (see Table 1), stir for 2-minutes using a slow-speed mechanical agitator or stirring stick and apply to substrate.
- The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.

Table 1 - HydroSeal Primer - Flashing and Deck

Catalyst required per 1-kg of resin used					
37°F to 50°F (3°C to 10°C)		50°F to 68°F (10°C to 20°C)		68°F to 95°F (20°C to 35°C)	
6% Catalyst		4% Catalyst		2% Catalyst	
g	kg	g	kg	g	kg
60	.06	40	.04	20	.02

Tip: Each scoop provided with the HydroSeal Catalyst is equal to roughly 0.01 kg. i.e., 2% catalyst for each 1 kg of resin = 2 scoops of catalyst powder; 4% catalyst for each 1 kg of resin = 4 scoops of catalyst powder.

- Pot life and working times noted below are approximate at 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

  Pot Life: approx. 10 – 15 minutes
  Rainproof: approx. 30 minutes
  Next Coat: approx. 30 minutes
  Fully Cured: approx. 3 hours

- After mixing, apply the catalyzed resin to the clean and prepared substrate at the required consumption using approved rollers or brushes. The resin should be spread evenly onto the surface.
- The clean and fully cured primer can be coated after a minimum of approximately 30-45 minutes up to a maximum of 6-months. If the surface of the primer becomes dirty or contaminated thoroughly clean the in-place and cured primer with HydroSeal Activator. The Activator should be allowed a minimum of 20-minutes evaporation time after application, and over-coated within 60-minutes of application.

Metal:

- HydroSeal Primer-Metal must be stirred before each use. HydroSeal Primer Metal is not catalyzed.
- After stirring, apply the primer to clean and prepared substrate at the required consumption using approved brushes. The primer should be applied in a thin-coat evenly onto the surface. Avoid and remove areas of heavy application, pooling, and runs especially at corners and angle-changes.
- Cure times noted below are approximate, provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

  86°F (30°C): at least 1 hour
  68°F (20°C): at least 2 hours
  50°F (10°C): at least 3 hours
  37°F (3°C): at least 4 hours

- Application over HydroSeal Primer-Metal should be done following the recommended minimum cure times indicated up to a maximum of 24-hours. If the surface of the primer becomes dirty or contaminated or left exposed to the elements for more than 24-hours, the primer must be ground off and re-applied.

Application

NOTE: If application of HydroSeal Flashing, Deck Membrane or the various surfacing resins is interrupted for more than 12-hours, use HydroSeal Activator to clean the transition as necessary. HydroSeal Activator should be allowed a minimum of 20-minutes evaporation time after application, and over-coated within 60-minutes of application.

HydroSeal Flashing:

• All termination and penetration flashing details should be completed prior to the application of the HydroSeal Deck Membrane over the field of the deck.
• Thoroughly mix the entire drum of resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 2) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.

Table 2 - HydroSeal Flashing, Deck, and Finish-Textured Resins

Catalyst required per 1-kg of resin used					
37°F to 50°F (3°C to 10°C)		50°F to 68°F (10°C to 20°C)		68°F to 95°F (20°C to 35°C)	
4% Catalyst		3% Catalyst		2% Catalyst	
g	kg	g	kg	g	kg
40	.04	30	.03	20	.02

Tip: Each scoop provided with the HydroSeal Catalyst is equal to roughly 0.01 kg. i.e., 2% catalyst for each 1 kg of resin = 2 scoops of catalyst powder; 4% catalyst for each 1 kg of resin = 4 scoops of catalyst powder.

• After mixing, apply resin to the properly primed substrate at a rate of 0.21 - 0.31 kg/sqft (2.3 to 3.3 kg/sqm) using approved rollers or brushes. The resin should be spread evenly onto the surface.
• Roll HydroSeal Fleece reinforcement directly into the resin, avoiding any folds and wrinkles. Use a roller to lightly work the resin into the fleece, saturating from the bottom up. Note the fleece should darken in appearance, with no white spots showing. White spots are indications of unsaturated fleece or lack of adhesion. It is important to correct these faults before the resin cures.
• Apply an even coat of resin over top of the in-place fleece at a rate of 0.09 kg/sqft (1.0 kg/sqm) using approved rollers. Use caution not to spread resin too thin.
• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

Pot Life: approx. 20–30 mins
Rainproof: approx. 30 minutes
Field Membrane Overlap: approx. 45 minutes
Fully Cured: approx. 3 hours

HydroSeal Deck Membrane:

• Thoroughly mix the entire drum of resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 2) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.
• After mixing, apply resin to the properly primed substrate at a rate of 0.21 - 0.31 kg/sqft (2.3 to 3.3 kg/sqm) using notched squeezees, approved rollers or brushes. The resin should be spread evenly onto the surface.
• Roll HydroSeal Fleece reinforcement directly into the resin, avoiding any folds and wrinkles. Use a roller to lightly work the resin into the fleece, saturating from the bottom up. Note the fleece should darken in appearance, with no white spots showing. White spots are indications of unsaturated fleece or lack of adhesion. It is important to correct these faults before the resin cures.
• Apply an even coat of resin over top of the in-place fleece at a rate of 0.09 kg/sqft (1.0 kg/sqm) using approved rollers. Use caution not to spread resin too thin.
• Maintain a minimum 2 1/2 - 3 inch (6.4 cm - 7.6 cm) overlap at all side laps of adjacent Fleece and 4 inch (10 cm) overlaps at all butt laps, tie-ins, and flashings.
• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

Pot Life: approx. 20 – 30 minutes
Rainproof: approx. 30 minutes
Walkable/Top Coat: approx. 45 minutes
Fully Cured: approx. 3 hours

Surfacing

Several surfacing options over a completed HydroSeal Deck Membrane application are possible. The type of surfacing required will be determined by the final exposed surface specified.

In general, a completed and cured HydroSeal Deck Membrane should be covered with the appropriate surfacing within 12 – 24 hours of completion. If HydroSeal Deck Membrane is left exposed for more than 24 hours, HydroSeal Activator can be used to clean the membrane surface as necessary prior to the application of any resin-based surfacing. HydroSeal Activator should be allowed a minimum of 20-minutes evaporation time after application, and over-coated within 60-minutes of application.

Protected Membrane Applications

Pedestal-Set Pavers

When the completed HydroSeal Deck Membrane application will be covered by loose-laid, open-joint pavers on pedestals, with or without a layer of STYROFOAM insulation, no further HydroSeal surfacing is necessary.

Mortar-Set Tile or Pavers

The following surfacing provides a protection and bonding layer over the completed HydroSeal Deck Membrane suitable for the subsequent application of a mortar-set paver or tile.

Materials required: HydroSeal Deck resin; HydroSeal Catalyst; Quartz Silica Aggregate (size: 0.7-1.2 mm)

• Thoroughly mix the entire drum of HydroSeal Deck resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 2) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.
• After mixing, apply resin to the surface of the HydroSeal Deck Membrane at a rate of 0.14 kg/sqft (1.5 kg/sqm) using approved rollers or squeegee. The resin should be spread evenly onto the surface. If using a squeegee to cover larger areas, back-rolling the application to remove any puddling is typically necessary.

• Broadcast aggregate into the wet resin to excess for full coverage. The approximate application rate of 1.4 lb/sqft (7 kg/sqm) can be used.
• Allow the HydroSeal resin to cure for 45 minutes and remove the excess aggregate by broom, vacuum or blower. The paver or tile mortar bed may be applied directly over the HydroSeal waterproofing membrane assembly.
• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

Pot Life: approx. 10 – 15 minutes
Rainproof: approx. 30 minutes
Walkable/Ready for Mortar Bed: approx. 45 minutes

Exposed Membrane Applications

Non-Traffic Bearing Surfaces
When the completed HydroSeal Deck Membrane application will not be exposed to pedestrian traffic, no further HydroSeal surfacing is necessary.

If a color finish, other than the basic HydroSeal Deck Membrane color is desired, the following surfacing option is available.

Materials required: HydroSeal Finish-Color resin; HydroSeal Catalyst

• Thoroughly mix the entire drum of HydroSeal Finish-Color resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 3) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.
• After mixing, apply resin to the surface of the cured HydroSeal Deck Membrane at a rate of 0.046 kg/sqft (0.5 kg/sqm) using approved rollers or squeegee. The resin should be spread evenly onto the surface. If using a squeegee to cover larger areas, back-rolling the application to remove any puddling is typically necessary.

Table 3 - HydroSeal Finish-Color and Finish-Clear

Catalyst required per 1-kg of resin used					
37°F to 50°F (3°C to 5°C)		50°F to 68°F (5°C to 25°C)		68°F to 95°F (25°C to 35°C)	
6% Catalyst		4% Catalyst		2% Catalyst	
g	kg	g	kg	g	kg
60	.06	40	.04	20	.02

Tip: Each scoop provided with the HydroSeal Catalyst is equal to roughly 0.01 kg. i.e., 2% catalyst for each 1 kg of resin = 2 scoops of catalyst powder; 4% catalyst for each 1 kg of resin = 4 scoops of catalyst powder.

• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

Pot Life: approx. 10 – 15 minutes
Rainproof: approx. 30 minutes
Walkable: approx. 1 hour
Fully Cured: approx. 3 hours

Traffic Bearing Surfaces
Note: All exposed wearing surfaces that will be exposed to pedestrian traffic require the application of HydroSeal Mortar. The selected surfacing should be applied within 12 hours of the HydroSeal Mortar application.

HydroSeal Mortar Application

Materials required: HydroSeal Mortar resin; HydroSeal Catalyst

• Thoroughly mix the entire drum of HydroSeal Mortar resin for 2-3 minutes before each use and prior to pouring off into a second container if batch mixing, using a slow-speed, twin-paddle, mechanical agitator until achieving a smooth lump-free mortar consistency assuring all material from the container sides and bottom are mixed-in.
• Catalyze only the amount of material that can be used within 10-15 minutes.
• Add pre-measured catalyst to the resin component (see Table 4) and thoroughly mix catalyst into resin-mortar for 2-minutes at temperatures above 50°F (10°C) and 4-minutes at temperatures below 50°F (10°C).
• After mixing, apply the Mortar to the surface of the HydroSeal Deck Membrane at a rate of 0.37 kg/sqft (4.0 kg/sqm) using a trowel (flat square-edge or 1/2 in. x 13/32 in. V-notch). Immediately smooth and even out the Mortar by rolling with a spiked roller. Each 15 kg unit will cover approximately 40 sqft (3.75 sqm).

Table 4 - HydroSeal Mortar

Catalyst required per 15-kg batch					
37°F to 50°F (3°C to 5°C)		50°F to 68°F (5°C to 25°C)		68°F to 95°F (25°C to 35°C)	
2% Catalyst		~1.3% Catalyst		~0.7% Catalyst	
g	kg	g	kg	g	kg
300	.3	200	.2	100	.1

• Pot life and working times noted below are approximate @ 68 F (20 C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.

Pot Life: approx. 10-15 minutes
Rainproof: approx. 30 minutes
Surfacing Application: approx. 1 hour
Fully Cured: approx. 3 hours

General-Duty Surfacing Application
The following surfacing provides a slip-resistant general-duty wearing surface appropriate for typical exposed balcony/terrace decks without the need for a separate broadcasting of aggregate.

Materials required: HydroSeal Finish-Textured resin; HydroSeal Catalyst

• Thoroughly mix the entire drum of HydroSeal Finish-Textured resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 2) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick taking care to thoroughly mixing the material at the sides and bottom of the container. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.
• After mixing, apply resin to the surface of the cured HydroSeal Mortar at a rate of 0.17 kg/sqft (1.8 kg/sqm). For best results, the resin should be spread evenly onto the surface using a flat trowel. If using a squeegee to cover larger areas, back-rolling the application to remove any puddling is typically necessary.
• After initially spreading the resin, use a roller pre-wet with HydroSeal Finish-Textured resin to backroll the application first in one direction and then in the cross-direction to obtain a uniform finish

• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.
- Pot Life: approx. 10-15 minutes
- Rainproof: approx. 20 minutes
- Walkable: approx. 45 minutes
- Fully Cured: approx. 3 hours

Heavy-Duty Surfacing Application
The following surfacing uses medium-grained aggregate to provide a slip-resistant, heavier-duty wearing surface appropriate for typical exposed balcony/terrace decks.

Materials required: HydroSeal Finish-Color resin; HydroSeal Catalyst; Quartz Silica Aggregate (silica sand) (size: 0.3-0.8 mm)

• Thoroughly mix the entire drum of either HydroSeal Finish resin for 2-3 minutes before each use, before adding catalyst, and prior to pouring off resin into a second container (i.e., plastic paint bucket/pail) for batch mixing.
• Catalyze only the amount of material that can be used within 15-20 minutes.
• Add pre-measured catalyst to the resin component (see Table 3) and stir for 2-minutes using a slow-speed mechanical agitator or stirring stick taking care to thoroughly mixing the material at the sides and bottom of the container. The amount of catalyst added is based on the weight of the resin used and the anticipated ambient conditions.
• After mixing, apply an aggregate bedding layer of resin to the surface of the cured HydroSeal Mortar at a rate of 0.056 kg/sqft (0.6 kg/sqm) using approved rollers. The resin should be spread evenly onto the surface. If using standard crystal quartz aggregate HydroSeal Finish-Color resin is typical; if using colored quartz aggregate, HydroSeal Finish-Clear is typical.
• Broadcast aggregate into the wet resin to excess for full coverage. The approximate application rate of 1 lb/sqft (5 kg/sqm) can be used. Allow the HydroSeal Finish resin to cure for 45 minutes and remove the excess aggregate by broom, vacuum or blower.
• Apply an even topcoat of HydroSeal Finish-Color at a rate of 0.046 kg/sqft (0.50 kg/sqm) using a hard rubber squeegee and lambswool roller.
• Pot life and working times noted below are approximate @ 68°F (20°C), provided as a guideline, and may vary. Actual set and cure times should be established in the field based on actual field conditions.
Pot Life: approx. 10 – 15 minutes
Rainproof: approx. 30 minutes
Walkable: approx. 2 hours

Precautions
Keep away from open fire, flame or any ignition source. Vapors may form explosive mixture with air. Avoid skin and eye contact with this material. Avoid breathing fumes. Do not eat, drink or smoke in area of application. Refer to product Safety Data Sheet (SDS) for additional information pertaining to this product and prior to use or handling.

Workers should wear appropriate clothing to protect from accidental skin contact. When mixing or applying this product workers must use butyl rubber or nitrile gloves. Safety glasses with side shields are required for eye protection. In enclosed spaces, use local exhaust ventilation to maintain worker exposure below TLV. If the airborne concentration poses a health hazard, become irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 CFR 1910.134. The specific type of respirator will depend on the airborne concentrations. A filtering face piece or dusk mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

Catalyzed and cured resin may be disposed of in standard landfills. Uncured resin is considered a hazardous material and must be handled as such, in accordance with local, state and federal regulations.

Availability and Cost

Availability
Through American Hydrotech, Inc. Sales Representatives worldwide.

Costs
HydroSeal is competitively priced. Contact your local representative or Hydrotech directly.

Guarantees
Contact American Hydrotech, Inc. for specific warranty information.

Maintenance
Typical roof-top maintenance should be conducted. Damaged HydroSeal flashings should be reported to the installing contractor or Hydrotech for proper repair.

Technical Service
Technical support is provided by Hydrotech's Technical Service Department.

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