valspar FLOORING

MERFLEX™ A

Floor system for water protection membrane and wearing surface

Technical Data Sheet

DESCRIPTION:

MERFLEX™ A is applied at 1/32" and is designed for areas requiring a combined water protection membrane and wearing surface. The MERFLEX™ A system has been assigned a CLASS A fire rating following ASTM E-84 procedures.

MERFLEX™ A is a true elastomer for use as a seamless, waterproofing membrane. This unique, flexible polymer system maximizes flexibility and elongation to provide excellent crack bridging capabilities. MERFLEX™ A is not externally plasticized. Fiberglass reinforcing may be incorporated within the system when reduced elastomeric properties are desired.

ADVANTAGES:

- Performance benefits of both an elastomeric membrane & a wearing surface combined in one system
- CLASS A fire rating
- Easily maintained
- Stain resistant
- Textured and/or slip resistant finishes for wet areas
- No toxic fumes during application

TYPICAL USES:

- Mechanical equipment rooms
- Floors in interior spaces where humidity & temperature are micro-controlled
- Access floor systems for computer rooms and offices where liquid lines prevail
- Areas requiring an elastomeric water protection surface that can accept heavier traffic
- High tech industrial floors

SYSTEM SPECIFICATION:

MERFLEX™ A as manufactured by Valspar shall consist of Valflex as the primer, Valflex as the membrane, and 1070 as the topcoat. Optional finish coat is as follows:

- CRU-400 Chemical Resistant Urethane

TYPICAL PHYSICAL PROPERTIES:

TYPE TEST	TEST METHOD	TYPICAL VALUE
Heat Resistance		120°F for continuous exposure
Tensile Strength	ASTM C-412	1,000 psi (7 MPa)
Tensile Elongation	ASTM C-412	125% max. @ 75°F 25% @ 14°F
Impact Resistance	Gardner Impact Tester	160 in•lb
Adhesion Bond Strength	ASTM D4-541	520 lbs/in^2 Concrete failure
Flammability	ASTM D-635	Self Extinguishing
Water Absorption	ASTM D-570	0.3%
Shore D Hardness	ASTM D-2240-91	40

Above typical values based on 7 days cure @ 75 ℉

LIMITATIONS:

- This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the flooring.
- Technical Data Sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on *www.valsparflooring.com*.
- Proper material application is the responsibility of the user. Site visits by Valspar personnel are for making technical recommendations only and not for supervising or providing quality control.
- Do not apply to concrete floors less than 60 days old without consulting Valspar Technical Service.
- Do not apply to floors previously treated with curing and parting compounds or other coatings unless they have been completely removed by chemical or mechanical means.
- Do not use on vinyl, asphalt, rubber, glazed tile, paving brick, quarry tile, Mexican tile, or similar materials.
- Do not apply if the floor or air temperature is below 60℉ or over 90℉ or if the relative humidity is above 85%.
- Do not apply over honeycombed or structurally unsound surfaces.

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- Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or Valspar Technical Service.
- If the product is to be applied in or near areas containing foodstuffs, they should be removed before the application and until the coating has fully cured and all vapors have dissipated.
- Do not thin these products. Addition of thinners will slow the cure and reduce the ultimate properties of the products. Critical recoat times will also be affected.

PRELIMINARY FLOOR INSPECTIONS:

In general, the area to be surfaced must be clean, sound, dry and above 60℉ to assure a successful installation. If there is uncertainty as to whether or not a curing compound or any coating is present on the floor, the following two tests may be performed in order to find out:

1. Pour a cup of water on three or four areas of the floor. If the water puddles out, then there probably is no curing compound or any coating on the floor, and the preparation process may begin. However, it the water beads up like on a waxed car, this may indicate the presence of a curing compound or any coating that must be removed by chemical or mechanical means.
2. Place a drop of PC-42 ACID CONDITIONER on the floor. If the acid bubbles, a curing compound or any coating is not present.

Always be alert to any possible airborne or surface contaminants, which may contribute to problems such as fisheyes, crawling, cratering, etc.

The concrete floor should be examined for the presence of moisture. This can be accomplished by the following means:

1. Calcium Chloride Test
2. Delmhorst Moisture Meter
3. Polyethylene Sheet Method.

Calcium Chloride Test: This test method works by a change in weight of moisture absorbing anhydrous calcium chloride and indicates the amount of moisture transmitting out of a large concrete surface area. Pounds is the equivalent weight of the water that is emitted from a 1,000 square foot concrete slab surface area in a 24-hour period of time (standard test duration is 60-72 hours). Follow instructions as outlined by the supplier of the test kits. Make sure the concrete surface to be tested is completely clean of any residue and any debris. All seals, including curing compounds must be removed prior to performing tests. Sources: Roofing Equipment Inc., Denver, CO 303-371-7667; Sealflex Industries Inc., Costa Mesa, CA 714-708-0850; Vinyl Plastics Inc., Sheboygan, WI 920-458-4664; and Floor Seal Technology, San Jose, CA 408-436-8181

SURFACE PREPARATION:

All oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners and other surface contaminants must first be removed. PC-43 WASH OFF REMOVER or PC-46 DRY EZE should be used for removal of sealers, finishes and paints. Inspect the concrete and remove loose or soft concrete by scarifying or sand blasting.

STANDARD TESTS:

Refer to the standard test methods below for further information.

ASTM D 4258-83	Standard Practice for Surface Cleaning Concrete for Coating
ASTM D 4259-83	Standard Practice for Abrading Concrete
ASTM D 4260-83	Standard Practice for Acid Etching Concrete
ASTM D 4262-83	Standard Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces

CHEMICAL PREPARATION:

PC-40 DYNOMITE should be used as directed to remove all traces of grease, oil, and dirt followed by a thorough rinsing to remove all cleaning residues. Remove excess water with a good wet vacuum. To remove laitance and to give a slight texture to area to be surfaced, acid-etch using PC-42 ACID CONDITIONER. Using a 1:1 dilution ratio with water, apply evenly as possible to the surface and vigorously scrub into the surface with a stiff bristle brush or automatic scrubber. Thoroughly rinse with copious quantities of water and use wet vacuum to remove any residues. **Repeat this process until concrete surface is the texture of medium grit sandpaper.**

MECHANICAL PREPARATION:

Mechanically abrade or “shot-blast” the surface to the texture of medium grade sandpaper, then vacuum up any dust. Whenever “shot-blasting” is utilized, be careful to leave concrete with a uniform texture.

APPLICATION INFORMATION:

Process Step	Material	Mix Ratio	Theoretical Coverage
Primer	Valflex Resin Valflex Hardener	1:1	300-400 sq.ft./gal
Membrane	Valflex Resin Valflex Hardener	1:1	40 sq.ft./gal
Topcoat	1070 Resin 1070 Hardener	2:1	160 sq.ft./gal
Optional Finish	CRU-400	2:1	350-400 sq.ft./gal

Stretch Coat:

- A stretch coat is recommended over cracks, particularly those that have not been pre-filled.
- This provides extra thickness at points of stress, permitting extra elongation.
- For cracks with minor movement, use reinforcing tape. Apply reinforcing in primer layer; apply Valflex directly over cracks 4 inches in width, 2 inches on either side of the crack. Apply at 20 mils film thickness.

Primer:

- Premix the Valflex Resin and Hardener separately using a low speed drill and Jiffy mixer. Mix for two minutes and until uniform, exercising caution not to introduce air into the material.
- Add 1 part Valflex Resin and 1 part Valflex Hardener by volume. Mix with a low speed drill and Jiffy mixer for three minutes and until uniform.
- Apply the Valflex at 300-400 sq.ft./gal by squeegee and backroll. Coverage will vary depending on the porosity of the substrate and surface texture.
- Allow Valflex to cure until the film is capable of taking foot traffic (12-16 hours at 75°F).

Membrane:

- Membrane must be applied within 6-24 hours of priming at 77°F. It can be applied as soon as the primer is tack free.
- Premix the Valflex Resin and Hardener separately using a low speed drill and Jiffy mixer. Mix for two minutes and until uniform, exercising caution not to introduce air into the material. If color is desired, use Epoxy Color Add at a rate of one pint per 1 gallon of Valflex Resin.
- Add 1 part Valflex Resin and 1 part Valflex Hardener by volume. Mix with a low speed drill and Jiffy mixer for three minutes and until uniform.
- Apply Valflex at 40 sq.ft./gal. by notched squeegee or notched trowel. Backroll utilizing a spiked roller.
- Allow Valflex to cure until the film is capable of taking foot traffic (12-16 hours at 75°F).

Topcoat:

- Topcoat must be applied within 48 hours of applying the membrane at 75°F. After 48 hours, screen before recoating. It can be applied as soon as the membrane is tack free.
- Premix the 1070 Resin and 1070 Hardener separately using a low speed drill and Jiffy mixer. Mix for two minutes and until uniform, exercising caution not to introduce air into the material. If color is desired, use Epoxy Color Add at a rate of one quart per 2 gallons of 1070 Resin.
- Add 2 parts 1070 Resin and 1 part 1070 Hardener by volume. Mix with a low speed drill and Jiffy mixer for three minutes and until uniform.
- Apply evenly by squeegee and back roll at a rate of 160 sq.ft./gal.

CURE TIME:

At a cure temperature of 75℉, allow 24 hours for light traffic. For heavy traffic and/or chemical spillages allow 72 hours.

CLEAN UP:

Tools should be cleaned right away with soap and water. Solvents such Xylene or UR-9 MCU THINNER can also be used.

REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER SAFETY AND HANDLING INFORMATION.

See individual labels for more caution statements.
KEEP OUT OF THE REACH OF CHILDREN.

DISPOSAL:
Dispose in accordance with federal, state, and local regulations. Use licensed hazardous waste company.

Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned.

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