

BATCH MIX ALIPHATIC ELASTOMER

Description

VFI-263 is a two component, one to one by volume; batch mix aliphatic polyurethane coating that has a long pot life and fast tack free time allowing application of multiple coats of material in a shorter time than previous batch mix technology. With its balance of physical properties, it will waterproof and protect the concrete from the elements that can deteriorate it over time also stand up to high wear traffic.

Usage

VFI-263 is designed for use as a colorfast wearing and waterproofing membrane for pedestrian decks, auto decks and industrial flooring. For other applications consult Volatile Free, Inc.

Color

Standard color for VFI-263 is White. Custom colors are also available. Contact your VFI representative for more information about custom colors.

Physical Properties

Hardness

ASTM D-2240	
Shore A	89 - 92
Shore D	37 - 41

Tensile Properties

ASTM D-412	
Strength	1347 psi
Elongation	169% min
Elastic Modulus	2912 psi
Yield Strength	308 psi
Permanent Set	5% max

Tear Strength

ASTM D-624	267pli
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Cold Temperature Flexibility

Mandrel Bend Test:	Passed 0.25 at 2°F
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Solid Material Density

63.93 PCF

Weather & Environmental Performance

Service Temperature

40°F to 180°F

Weatherability

ASTM G-53
No significant color change, loss of gloss, cracking, checking or loss of integrity after 2000 hours.

Hydrolytic Properties

Water absorption

ASTM D-471	
24 hours at room temp.	0.3%

Water Vapor Permeability

ASTM E-94	
0% R.H. @ 73°F 20 mil film:	0.14 perms

Chemical Resistance

ASTM D-1308 Method 6.2	
Gasoline	No Effect
Oil	No Effect
Anti-freeze	No Effect
Transmission Fluid	No Effect
Brake Fluid	Slight

Fire Resistance

Not rated

Liquid Component Properties

Ratio

Volume	1 Iso to 1 Poly
Weight (White)	1 Iso to 1.45 Poly

Solids

Weight: Poly 100%	Iso 64.39%	Mixed 85.54%
Volume: Poly 100%	Iso 59.92%	mixed 79.96%

Coverage or Yield

Sq. Ft. / Gal. / Mil	1280
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Viscosity

Poly Component	7000-52000 cps @ 77°F
Depending on color	
Iso Component	550 cps @ 77°F

- **Liquid Density & Specific Gravity**
Poly Component 11.81 lbs/gal (SG 1.418 g/ml)
(White) Will vary with colors
Iso Component 8.13 lbs. / gal. (SG 0.976 g/ml)
- **VOC's**
Iso Side only 2.89 lbs/gallon or 289 g/L
Mixed 1.44lbs/gal or 144.5g/L
- **Toxicity**
Contains solvent that requires ventilation of vapors during mixing and application. Contains aliphatic polyisocyanate that may be irritating to the skin and is toxic if inhaled as particulate matter. Material contacting the skin should be neutralized by washing with generous amounts of water. See MSDS for more details.
- **Storage Stability or Shelf Life**
Poly side 12 months in unopened containers @ 50°- 90°F.
ISO side 6 months in unopened containers @ 50°- 90°F. Normally, containers should be used within one week after opening.
- **Reactivity**
Reacts fast in a mass when mixing, once the product is poured on to the floor it slows down for a longer working time.
 - **Recoat Time:** VFI-263 will be ready for recoat in 4 hours @ 70°F and 6 hours @ 40°F.
 - **Place-Into-Service Time:** Allow 12 hours after final coat @ 70° F before permitting light traffic.
 - **Full Cure Time:** 2 - 7 days

Application

- **Equipment**
VFI-263 is applied by notched trowel, medium nap solvent resistant roller cover, squeegee or brush.
- **Material Preparation**
Product should be at least 70° F for proper mixing and application. Premix poly side first.
- **Mixing**
Best results are obtained by pouring the ISO into the mixing container first. Then mix equal volume of Poly into the Iso. Mix well and pour into a clean bucket, scrape sides of old bucket into the new one and remix. Pour out within 7-10 minutes from start of mix to maximize working time.
- **Substrate Preparation**
Clean and solid surface with a profile for mechanical adhesion. Sandblast or shotblast all concrete surfaces to achieve a profile equal to 80-100 grit sand paper. Refer to SP13/NACE 6. Pitted or cracked concrete must be repaired.
- **Primers**
Sealing porous surfaces with VFI-1007 is recommended. VFI #11 Epoxy Primer is recommended for cementitious and masonry surfaces where enhanced adhesion is needed. VFI-1003 Primer is recommended for maximum adhesion to blasted steel surfaces. Please contact Volatile Free, Inc. for more specific preparation recommendations and or the concrete is on grade.
- **Application**
Mark off the area that the contents of the mixed material will cover. Pour contents of the pail onto the primed concrete in a 6" ribbon, as even as possible in that area. Use a 24" by 3/8" notched squeegee to spread the material evenly. Use a roller to finish to process. See VFI's specification for detailed instructions.
- **Thinning**
Xylene; 10%, no more than 25%
- **Clean-up Solvent**
Xylene, MEK. For reduced fire hazard use glycol ethers or environmentally acceptable chlorinated solvents.
- **Limitations**
Contact VFI for appropriateness of this product for your specific application.
- **Precautions**
See Material Safety Data Sheet for complete safety data. Protect from exposure to moisture. Water will cause the "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.
- **Packaging**
5 gallon pails

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