



VFI-3104 URETHANE CONCRETE SEALER & PRIMER

Overview

■ **Description**

VFI-3104 is a high performance, two component urethane primer designed for use on concrete. It has a convenient 1:1 mix ratio by volume for both plural component and traditional spray methods. This can also be squeegee and back rolled as a application method. The resulting primer cures to a bubble free, concrete porosity filler that can be recoated with either polyurea or polyurethane topcoats.

It also exhibits a low sensitivity to substrate moisture, leaving only minimal bubbling when applied to damp surfaces. Working times are adjustable with both a fast and slow version to accommodate specific turnaround and recoat times.

■ **Usage**

As a concrete primer for Polyurea/Polyurethane coatings.

■ **Color**

Standard color is natural.

Physical Properties

■ **Hardness**

ASTM 2240	
Shore A	90
Shore D	43

■ **Tensile**

Strength	3000 psi
Elongation	70%
Elastic Modulus	45,500 psi

■ **Tear Strength**

ASTM D-624	280 pli
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■ **Solid Material Density**

68.40 lb/ft³

■ **Impact Resistance**

Un-notched Izod 160 in/lb

■ **Dimensional Stability**

Shrinkage none

■ **Adhesion**

>500 psi on concrete (concrete failure)

Weather & Environmental Performance

■ **Hydrolytic Properties**

■ **Water Vapor Permeability**

ASTM E-96	
50 mil thickness @ 70°F	0.05 perm

Liquid Component Properties

■ **Mixing Ratio**

- **By Volume**
 - "A" side 1
 - "B" side 1

■ **By Weight**

- "A" side 125.27
- "B" side 100

- **Coverage or (Yield)**
200-400 sq ft per gallon (1600 mil ft per gallon)
- **Solids**
100%
- **Viscosity**

"A" side	45 cps
"B" side	700 cps
Mixed	325 cps
- **VOC** 0%
- **Liquid Material Density & Specific Gravity**

"A" side	10.17 lb/gal (S.G. 1.22)
"B" side	8.12 lb/gal (S.G. 0.97)
- **Reactivity (@ 75°F)**
 - **Pot Life:** Fast-20 minutes/Slow-30 minutes
 - **Tack Free:** Fast-1.5 hours /Slow-4 hours
 - **Put Into Service Time:** 24 hours
 - **Recoat Time:** Fast-45 min to 12 hours max /Slow-2 hours to 24 hours max
 - **Cure Time:** Full cure in 24 hours
- **Storage Stability or Shelf Life**
12 months in original unopened containers.
Keep Poly "B" side covered at all times when not in use.

Application

- **Equipment**
Electric or pneumatic mixer with vessel and flat squeegee or plural component/traditional spray equipment with recommended flat squeegee back roll.
- **Surface Preparation**
Mechanically abrade and chemically treat the surface. Test for adhesion to any existing surface coating. Contact VFI's Technical Department further assistance.
- **Material Preparation**
Pre-mix each component separately for 2-3 minutes prior to spraying or batch mixing. After single component mix, place the correct volume of each system component into mixing vessel and mix at low speed for 3 minutes while minimizing the amount of air mixed into the batch. Avoid a large vortex.
- **Top Coat**
The material is ready to top coat when it has a slight tack to it and you are able to walk on it without tracking dirt on the surface. Surface temperature will affect the dry time.
- **Clean-up Solvent**
Clean equipment with Xylene or Acetone
- **Limitations**
Store at temperatures between 60-95°F. Drying time will vary with surface temperature, air circulation, humidity and film thickness.
- **Precautions**
Use proper protection when working with the Iso (A) side as Isocyanates can cause irritation, dermatitis and sensitization. Refer to the MSDS for more information.
- **Storage**
The reaction of Isocyanates with water causes the formation of insoluble ureas and carbon dioxide gas which can result in pressure buildup inside closed containers. Therefore extreme care must be taken to assure containers used for the A side remain dry.
 - **Desiccant Cartridge:** Use desiccant bags for two part unit storage.
 - **Nitrogen Blanket:** Use nitrogen blanket before sealing containers after use.
 - **Storage When High Humidity is Present:** Make sure that the containers are tightly sealed and stored away from areas where moisture and condensation are present or likely to become present
- **Thinning**
Not recommended
- **Packaging**
 - 1 Gallon Cans
 - 5 Gallon Pails
 - 15 Gallon Drums
 - 55 Gallon Drums

For more information, contact us today at **800-307-9218**