

## VFI-3500 ALIPHATIC DECK COATING

### Overview

- **Description**  
VFI-3500 is a single component, aliphatic deck coating.
- **Usage**  
VFI-3500 is used for pedestrian and traffic deck coating systems.
- **Color**  
Standard colors:  
Tan, Light gray and clear.

### Physical Properties

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| <ul style="list-style-type: none"> <li>■ <b>Hardness</b><br/>ASTM D-2240<br/>Shore A <span style="float: right;">90 ± 5</span></li> <li>■ <b>Tensile Properties</b><br/>ASTM D-412<br/>Strength <span style="float: right;">3000 psi</span><br/>Elongation <span style="float: right;">350%</span><br/>Permanent Set <span style="float: right;">10% max</span></li> </ul> | <ul style="list-style-type: none"> <li>■ <b>Adhesion</b><br/>Excellent adhesion to VFI selected primers, concrete and wood.</li> <li>■ <b>Tear Resistance</b><br/>ASTM D-624<br/>Die C <span style="float: right;">350 pli</span></li> </ul> |
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### Weather & Environmental Performance

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| <ul style="list-style-type: none"> <li>■ <b>Weatherability</b><br/>Excellent UV and environmental resistance.</li> <li>■ <b>Chemical Resistance</b><br/>Good salt and solvent resistance. Fair resistance to acid and alkali.</li> <li>■ <b>Toxicity</b><br/>Contains aliphatic Isocyanate and combustible solvents.</li> </ul> | <p>The TLV for the solvent is 200 parts per million. Provide adequate ventilation when applied in confined areas or use an air supplied face mask. The solvents and Isocyanate might be irritating to the skin. Neutralize any material contacting the skin by washing with water for 10-15 minutes.</p> <ul style="list-style-type: none"> <li>■ <b>Flammability</b><br/>Not rated</li> <li>■ <b>Storage Stability</b><br/>6 months in unopened containers below 75°F.</li> </ul> |
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### Liquid Component Properties

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| <ul style="list-style-type: none"> <li>■ <b>Coverage</b><br/>Sq/ft/gal/mil <span style="float: right;">1130</span></li> <li>■ <b>Solids</b><br/>Weight: <span style="float: right;">82.0 ± 1.0%</span><br/>Volume: <span style="float: right;">78.0 ± 1.0%</span></li> </ul> | <ul style="list-style-type: none"> <li>■ <b>Viscosity</b> <span style="float: right;">1500-2500 cps</span></li> <li>■ <b>Flash Point</b> <span style="float: right;">110°F</span></li> <li>■ <b>VOC</b><br/>Contains less than 200 grams/liter</li> </ul> |
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## Application

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- **Equipment**

Mix VFI-3500 before application to ensure uniform color and consistency. VFI-3500 can be applied by brush or roller.

- **Surface Examination (Concrete)**

The concrete deck area to be coated should be at least 28 days old with a minimum 3000 psi compressive strength. Both new and old concrete should be clean of existing materials and materials that can interfere with adhesion such as oils and other fluid stains. Concrete should be free of ridges and any protrusions; the concrete surface should be smooth. The substrate needs to be structurally intact with no cracked or damaged areas existing, prior to coating application. Grinding, shot blasting, patch repair, cleaning and power washing may be required to meet the above criteria. Contact your VFI representative for further information.

- **Surface Preparation (Concrete)**

**Cleaning:** Surface cleaning oils, grease and other contaminants can be done using a number of commercial concrete cleaners.

**Surface Restoration:** Shot-blasting is preferred to mechanically prepare concrete to industry standard surface texture (ICRI CSP3-CSP4). Where shot-blasting cannot be performed, treat the surface with diluted muriatic acid to remove laitance and impurities. Make sure all muriatic acid solution is removed prior to application.

**Cracks and Joints:** Small cracks of less than 1/16" in width should be cleaned and primed with VFI-1007 and filled with VFI-3400, or another compatible crack filling compound. Large cracks of greater than 1/16" should be coated with a VFI approved crack sealant compound after the crack has been prepared by removing any loose concrete and other existing loose material.

For joints, less than or equal to 1" wide, use industry standard methods and VFI approved joint sealant. Backing material and a bond breaker may be required.

**Other Considerations:** For all other surface preparations, use industry standard methods for preparations where necessary. Flashing tape and reinforcing fabric may be required in some areas. Other areas may require special details.

The substrate temperature shall be a minimum of 40°F with ambient temperature at least 40°F but less than 85°F. The ambient temperature shall be at least 5°F above the dew point. The forecast shall be clear of precipitation for at least 24 hours after the completion of application. All surfaces to be coated should be clean and dry prior to application.

- **Application**

**Primer:** For concrete, use VFI-1007 sealer, followed by VFI-#11. Make sure that the surface is uniform and smooth. For wood, primer is only required when the wood is treated, >10% moisture content, or going over a pre-existing coating. In these cases, use VFI-1007 to seal. Apply the VFI-3500 basecoat within 24 hours of priming. If 24 hour window passes, re-prime.

**Basecoat:** Apply VFI-3400, 2 component at a rate of 100 square feet/gallon to achieve a 16 mil dry film thickness. Pour material out in a wide bead pattern and use a notched squeegee to distribute the material to approximate coverage rate. Roll the material out using a 3/8", lint free, solvent resistant, phenolic core roller. Use a 90 degree cross rolling method to achieve uniform thickness and surface smoothness.

**Texture Coat:** Apply VFI-3500 at a rate of 100 square feet/gallon to yield approximately 13 dry mils. Use the same pour and roller methods and materials as the basecoat application. After cross rolling, immediately broadcast aggregate until rejection. Remove excess aggregate when dry (usually a minimum of 12 hours). For heavy traffic areas, a second texture coat may be necessary.

**Topcoat:** Apply VFI-3500 at a rate of 80 square feet/gallon using the previous pour and roller methods and materials. The standard total film thickness, not including primer and aggregate should be between 42-46 dry mils.

- **Cure Time**

VFI-3500 will be tack free within 12 hours at 72°F and 40% relative humidity. Allow at least 72 hours at these conditions, after applying the topcoat, before putting area into full service use. Lower temperatures and humidity will require longer cure times.

- **Clean-up Solvent**

Clean with Toluene, Xylene or High Flash Naptha.

- **Limitations**

Do not apply if ambient or surface temperature conditions are below 40°F or above 85°F. Make sure that ambient temperature will be at least 5°F more than the dew point throughout the day, preferably with a minimum of 40% relative humidity. Do not apply if precipitation is in the forecast within 24 hours after application.

- **Precautions**

Make sure to review the SDS and follow all PPE and safety recommendations.

- **Thinning**

Contact a VFI representative prior to thinning. Thinning, however, should not be necessary.

- **Packaging**

1 gallon steel pails  
5 gallon steel pails