



## VFI-2511 FLEXIBLE PLASTIC ENCAPSULANT 70 SHORE D

### Overview

■ **Description**

VFI-2511 is a two component, 100% solids, one to one by volume, fast cure polyurethane coating. VFI-2511 is described as having moderate impact resistance.

■ **Usage**

VFI-2511 is a plural component spray applied coating that has the following applications, among others:

- Impact resistant coating for the protection of easily deformable substrates such as EPS and insulative foams.
- Structural plastic for use in part fabrication where only a moderate level of impact resistance is required.

- Plastic coating which can be textured to splash protect drywall, wood or other architectural substrates from many common liquids.
- Aromatic base coat used to provide a continuous surface for stapled wood items.
- Structural for foam sculptures.
- Waterproof encapsulating material.

■ **Color**

Neutral. Other colors may be available upon request. Contact your VFI representative for more information.

### Physical Properties

■ **Hardness**

ASTM D-2240	
Shore D	69-71

■ **Impact Resistance**

Un-notched Izod:	10.0 ft*lbs/in @ 73°F
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■ **Tensile Properties**

ASTM D-412	
Tensile Strength	5781 psi
Elongation	20%
Elastic Modulus	29,355 psi
Yield Strength	6151 psi

■ **Tear Resistance**

ASTM D-624	552 lb/in
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■ **Fire Resistance**

Not rated. Contact Volatile Free, Inc. for details.

■ **Chemical Resistance**

Hydrolytic Stability: Recovers after 10 days 150°F immersion. Generally resistant to most dilute aqueous agents when cleaned off within 10 hours of contact. Very difficult to stain by virtue of its high hardness and low porosity. Constant or frequent immersion service is not recommended.

### Weather & Environmental Performance

■ **Weatherability QUV Test Data**

QUV results indicate that yellowing might be discerned in neutral or off-white in 2-3 months continual exposure. Dark colors such as black might persist for almost a year before oxidative damage might manifest itself as chalking.

Physical properties however do not typically show significant change over long periods of time.

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## Liquid Component Properties

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- **Solids**  
Volume 100%
- **Viscosity**  
"A" side 470 cps @ 77°F  
"B" side 1100 cps @ 77°F
- **Liquid Material Density & Specific Gravity**  
"A" side 9.8 lbs/gal (S.G. 1.176)  
"B" side 8.4 lbs/gal (S.G. 1.008)
- **Toxicity**  
ISO component contains polymeric Isocyanate requiring fresh air respirator, gloves, and protective clothing during application.
- **Mixing**  
Volume 1 unit ISO: 1 unit Poly  
Weight 1 unit ISO: 0.862 units Poly
- **Reactivity**  
**Gel time** 12-16 seconds @ room temperature  
<4 seconds @ 150°F
- **Storage**  
**Warning!** VFI-2511 is sensitive to moisture. Store in a dry place between 60-90°F. Do not preheat over 100°F without mixing. Shelf life is 6 months for the ISO (A) side and 6 months for the Poly (B) side in original unopened container. All containers must be sealed when not in use. Containers that have been opened should be used within one week. To prolong the shelf life of the containers, it is recommended that a blanket of nitrogen be applied to the container or desiccant cartridge inserted into the container opening.

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## Application

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- **Material Preparation**  
Thoroughly mix ISO "A" side and Poly "B" side components separately before beginning to apply. This takes a minimum of 15 minutes per drum with proper mixing equipment. For specific mixers, blade and shaft length information, contact Volatile Free, Inc. A hand mixer is not adequate.
- **Surface Preparation**  
Please refer to VFI specifications relating to your specific project.
- **Equipment**  
Plural component airless spray equipment capable of maintaining temperatures of 140-160°F, with 1800 psi minimum pressure and a 1:1 volume mix ratio. Compatible with a wide range of plural component spray equipment. However, for detailed work the Gusmer GX-8 and especially the Gusmer DI modification for the GX-7 400 are highly recommended. Contact Volatile Free, Inc. for specific spray instructions.
- **Cure Time**  
Applied coating will set in 2-4 minutes at 70°F, depending on film thickness, the liquid material temperatures and the substrate temperature. The product can be placed into service after four hours of cure time at 70°F minimum.  
  
It is recommended to begin priming or painting the plastic at the first sign of cure (typically 2 minutes) to maximize adhesion. Pretest adhesion of your paints to the surface.
- **Thinning**  
Do not thin. VFI-2511 components cannot be cross mixed with any other coating components.
- **Limitations**  
Please contact VFI representative for further technical information for your specific application.
- **Precautions**  
See Safety Data Sheet for complete safety data.
- **Packaging**  
5 gallon pails  
15 gallon ponies  
55 gallon drums

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

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