

STRUCTURAL PLASTIC

■ Description

VFI-2546 is a two component, 100% solids, one to one by volume, fast set pure polyurea structural coating.

■ Usage

VFI-2546 is intended for use as a plural component spray applied coating for a variety of applications including but not limited to the following:

- Chiefly used as the structural plastic in open molding operations.

- Structural plastic for use in any part fabrications where temperature stability and superior impact resistance is required while maintaining high hardness and modulus.
- May be used in encapsulant type applications in which higher heat distortion and impact are required.
- Aromatic base coat used to provide a continuous surface for porous wood constructs.

■ Color

Neutral or Black are typical. Many other colors available upon request – Contact VFI for details.

Physical Properties

■ Weatherability

QUV results indicate that yellowing may be visibly discerned in neutral or off-white within one week actual exposure. While physical properties do not vary much with exposure to UV over time, chalking may occur relatively rapidly. If your application involves significant UV exposure when placed into service, you should consider protecting the VFI-2546 e.g. with an aliphatic topcoat.

■ 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 not recommended unless sealed with a water impermeable membrane.

■ Tensile Properties

ASTM D-412
Tensile Strength: 1725 psi
Elongation: 271%
Yield Strength: 459 psi
Elastic Modulus: 3135 psi

■ Tear Resistance

ASTM D-624: 200 lb/in

■ Hardness

ASTM D-2240
Shore A: 90@RT
Shore D: 40@RT

Liquid Component Properties

■ Solids

% Nonvolatile (wt): 100%

■ Viscosity

Poly Component:
550-800 cps @ 77°F
Iso Component:
1000-1600 cps @ 77°F

■ Density

Poly Component:
8.5 lbs./gal.
Iso Component:
9.2 lbs./gal.

■ Flash Point

ASTM D-56 (TCC)
Greater than 200°F.

■ Toxicity

Iso component contains polymeric isocyanate requiring fresh air supply respirator, gloves, and protective clothing during application.

■ Storage Stability

One year in unopened containers at 50° - 90°F. **Do not** preheat over 100°F maximum without mixing.

Application

■ Material Preparation

Thoroughly power mix Poly and Iso component separately before beginning to apply. Usually this takes a minimum of 15 minutes per drum with proper mixing equipment. For specific mixers, blade and shaft length, contact V.F.I. A hand mixer is not adequate.

■ Equipment

Plural component airless spray equipment capable of maintaining temperatures of 140 - 160°F, 1800 psi minimum pressure and a 1:1 volume mix ratio. Compatible with a wide range of plural component spray guns. Contact Volatile Free, Inc. for specific instructions and spray equipment needed.

■ Reactivity

Gel Time: 7 - 10 sec @ RT
< 3 sec @ 150 F
Tack Free: <30 seconds

■ Cure Time

Applied coating will set in 1 - 2 minutes at 70°F, depending on film thickness, liquid material temperature and the substrate temperature. Product can be placed into service after four hours of cure time at 70°F minimum. It is encouraged to begin priming or painting the plastic at the first sign of cure (typically 1 minute) to maximize adhesion.

Corporate Office: P.O. Box 344 / Brookfield, WI 53008 / 800-307-9218 / 262-787-0400 / Fax: 262-787-0500

This information and technical advice provided herein are believed to be reliable and accurate to the best knowledge of Volatile Free, Inc., as based on tests and should serve only as a recommendation. As the manufacturer, Volatile Free, Inc. makes no representations or warranties of any kind, expressed, implied or statutory, including but not limited to all implied warranties of merchantability or fitness for use or a particular purpose for the product. Volatile Free, Inc. makes no representations or warranties as to the results of the use of the product and assumes no obligation or liability in connection therewith. Volatile Free, Inc. is not liable for any incidental or consequential damages of any sort from use of this product. The information provided herein is subject to change at any time without notice. Information changes may include, but are not limited to, commercial and technical changes, changes in pricing, physical characteristics and packaging.