

## GENERAL PURPOSE POLYUREA HYBRID ELASTOMER

### ■ Description

VFI-540R is a 100% solids, two component one to one by volume polyurea hybrid coating.

### ■ Usage

VFI-540R is intended for use as a spray applied coating for a variety of applications including but not limited to the following:

- Protective coating for metal and smooth asphalt roofs.

- Secondary containment when applied over concrete, wood or geotextiles.
- Protective coating for decorative products.
- Wearing and waterproofing membrane.

### ■ Color

Black and Gray

Custom colors are also available. Please contact Volatile Free, Inc. for more information.

## Physical Properties

### ■ Chemical Resistance

Good hydrolytic stability to 180°F. Good resistance to inorganic bases, acids and hydrocarbon solvents. Fair resistance to oxygenated and chlorinated solvents.

### ■ Tensile

ASTM D-412	
Strength:	2852 psi
Elongation:	314%
Permanent Set:	25% max.
Yield Strength	602 psi
Elastic Modulus	4715 psi

### ■ Adhesion

ASTM D-4541  
Adhesion to unprimed concrete.  
475 lb./in.<sup>2</sup> with concrete failure

### ■ Hardness

ASTM D-2240	
Shore A	94 - 96
Shore D	47 - 51

### ■ Tear Resistance

ASTM D-624	
Die C	311 pli

### ■ Abrasion Resistance

Excellent.

### ■ Permeability

ASTM E-96	
Method BW	.03 perm In.

## Liquid Component Properties

### ■ Solids

Weight:	100%
Volume:	100%

### ■ Viscosity

Poly Component:	3268 ± 500 cps @ 77°F
Range:	3900 ± 1000
Iso Component:	624 C 50 cps @ 77°F
Range:	600 ± 200

### ■ Density

Poly Component: 10.7-11.4 lbs./gal.(S.G. 1.28-1.37)  
Depending on color.  
Iso Component: 9.41 lbs./gal. (S.G. 1.13)

### ■ Specific Gravity

Poly Component:	1.285 g/ml.
Iso Component:	1.369 g/ml.

### ■ V. O. C.

Conforms to all Air Pollution regulations. Contains no Volatile Organic Compounds.

### ■ 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.

## Application

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### ■ Material Preparation

Thoroughly power mix Poly and Iso component 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 130° - 140°F, 1500 to 2000 psi minimum pressure and a 1:1 volume mix ratio. Contact Volatile Free, Inc. for specific instructions and spray equipment needed.

### ■ Reactivity

Tack free time is 15-40 seconds when sprayed with hot plural component airless spray equipment.

### ■ Cure Time

Applied coating will set in 3-15 minutes at 70°F, depending on film thickness and the substrate temperature. Product can be placed into service after four hours of cure time at 70°F minimum.

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