

## POLYASPARTIC ESTER SPRAY COATING

- **Description**  
VFI-2816 is a 100% solids, two component, fluid applied, 1:1 ratio, aliphatic, spray/batch mix polyaspartic ester, polyurea coating.
- **Usage**  
VFI-2816 is intended for use as a pigmented finish coating for concrete walls and floors.
- **Color**  
Standard color is white. Contact Volatile Free, Inc. for information about custom colors.

### Physical Properties

- **Harness**  
ASTM D-2240  
Shore D: 65-69 @ 73°F  
Pencil Hardness "B"-“HB” @ 73°F
- **Tensile**  
ASTM D-412  
Tensile strength 3820 psi  
Elongation 6%  
Yield strength 3431 psi  
Elastic modulus 34,082 psi
- **Tear Resistance**  
ASTM D-624  
Die C 383 lb/in
- **Abrasion Resistance**  
Excellent

### Weather & Environmental Performance

- **Weatherability QUV Test Data**  
QUV accelerated weathering: Excellent weathering and UV resistance.
- **Water Vapor Permeability**  
ASTM E-96 Method B Unknown
- **Chemical Resistance**  
Good hydrolytic stability to 160°F. Good ponding water resistance.

### Liquid Component Properties

- **Solids**
  - **By Weight**  
“A” side 100%  
“B” side 100%
  - **By Volume**  
“A” side 100%  
“B” side 100%
- **Viscosity**  
“A” side 850-1000 cps @ 77°F  
“B” side 900-1000 cps @ 77°F  
Neutral/5% white
- **Liquid Material Density**  
“A” side 9.31 lbs/gal  
“B” side 8.83lbs/gal (neutral)  
9.17 lb/gal (5% white)
- **VOC's**  
Conforms to all Air Pollution regulations.
- **Flash Point**  
ASTM D-56 (TCC)  
No data. >200°F expected
- **Storage Stability**  
“A” side 6 months in unopened containers stored at 60-90°F and dry conditions.  
“B” side 12 months in unopened containers stored at 60-90°F and dry conditions.

- **Toxicity**  
ISO component contains aliphatic Isocyanate requiring fresh air supply respirator, gloves, and

protective clothing during application. A elevated temperatures or when spraying use fresh air supply respirator.

## Application

- **Equipment**  
Batch mix or 1:1 ratio equipment. In spray-applications, please note shortened pot life.
- **Surface Preparation**  
Remove all surface contamination, mechanically abrade and chemically treat to provide a clean, solid surface. Or use over the top of VFI-3104 primer after properly prepared and within the recoat window for either the fast or slow system.
- **Material Preparation**  
Pre mix each component separately for 2-3 minutes prior to batch mixing. After each component is slowly mixed, place the correct volume of each system component into the mixing vessel and mix at low speed for 3 minutes while minimizing the amount of air mixed into the batch. Avoid creating a large vortex while mixing.
- **Clean-up Solvent**  
Clean equipment with Xylene or Acetone.
- **Thinning**  
Not recommended and will change the physical properties.
- **Cure Time**  
Applied coating will set in 3 hours @ 70°F, depending on thickness (recommended <=15 mils) relative humidity and substrate temperature.

It is advised to avoid rain and poor weather for a period of 24 hours or more to ensure film and physical property development. In film applications above 20 mils, it is characteristic for the material to cure from the top-down. Sometimes this cure profile will cause the surface to become wrinkled. Therefore it is recommended to apply in 15 mil builds.

- **Mix Ratio**
  - **By Volume**  
1 part ISO to 1 part Poly by volume
  - **By Weight**  
1 part ISO to 0.948 Poly (neutral)  
1 part ISO to 0.984 Poly (5% white pigmented)
- **Limitations**  
Store at temperatures between 60-95°F. Drying time will vary with surface temperature, air circulation, humidity and film thickness.
- **Storage**
  - **Storage Stability:** The reaction of Isocyanates with water leads to 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.
- **Packaging**  
5 Gallon Kits  
15 Gallon Kits  
55 Gallon Kits