

## 85A ALIPHATIC POLYUREA CAULK

■ **Description**

VFI-5013 is a 100% solids, two component, fluid applied, 1:1 ratio, aliphatic, polyurea hybrid caulk designed for sealing horizontal joints.

■ **Usage**

VFI-5013 is used to fill interior or exterior control joints on new construction joints on horizontal concrete surfaces. VFI-5013 is designed for applications requiring color retention. VFI-5013 clear is specified for applications that require the

aesthetics of clear silicone joint filler. This product is not suitable for use in applications expected to experience 150°F sustained temperatures or higher as the compound has a low softening point. We still recommend aromatic polyurea for high temperature applications/environments.

■ **Color**

Standard colors are white, light gray, clear and neutral. Please contact Volatile Free, Inc. for information on custom colors.

### Physical Properties

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■ **Weatherability**

QUV accelerated weathering:  
Excellent UV resistance. VFI-5013 has only fair heat resistance in exterior applications. The cured compound is moldable at temperatures around 200°F. VFI recommends unlimited use indoors and utilization of light colors in outdoor applications.

■ **Chemical Resistance**

Good hydrolytic stability. Excellent ponding water resistance.

■ **Water Vapor Permeability**

No data

■ **Hardness**

ASTM D-2240  
Shore A 79

■ **Tensile Properties**

ASTM D-412	
Strength	1131 psi
Yield Strength	157 psi
Elongation	1054%
Elastic Modulus	927 psi

■ **Tear Resistance**

ASTM D-624	
Die C	248 pli

■ **Abrasion Resistance**

Good.

### Liquid Component Properties

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■ **Solids**

Weight:	100%
Volume:	100%

■ **Coverage**

VFI-5013 300 x 300-ml cartridges will cover, when used with closed cell backer rod, approximately 17' of ¼" wide control joints. Bulk coverage will depend on size of joints. Contact VFI representative for further technical information on coverage.

■ **Viscosity**

"A" side	510-522 cps @ 77°F
"B" side	288 cps @ 77°F

(clear) colors are thixotropic

■ **VOC's**

Conforms to all air pollution regulations. Contains no Volatile Organic Compounds

■ **Material Density & Specific Gravity**

"A" side	8.5 lbs/gal (SG 1.020 g/ml)
"B" side	8.3 lbs/gal (clear) (SG .996 g/ml)

- **Toxicity**  
Contains Isocyanate requiring gloves, and protective clothing during application. At elevated temperatures or when spraying use a fresh air supply respirator.
- **Mix Ratio**  
1 to 1 by volume
- **Storage Stability or Shelf Life**  
“A” side 6 months in unopened containers at 50-90°F in cartridge systems;  
“B” side 12 months in unopened containers @ 50-90°F in cans.

## Application

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- **Procedure**  
Remove all debris, oil and/or other contamination from construction saw joint. If the area to be caulked is damp, new or smooth and without profile it must be primed with VFI-1007 and allowed to set 20-25 minutes before application.
- **Tube Set Preparation**  
VFI-5013 should be applied using the following procedures: remove the red safety cap and white plug exposing the open tube. Attach the static mixer to the cartridge set. Secure the static mixer to the cartridge set by tightening the retaining nut. Load the cartridge set into the dual position caulk dispenser. Dispense the material. Available work time is approximately thirty seconds.
- **Reactivity**  
Gel time (in mass):  
    Initial 8-9 sec  
    Gel 3-5 min  
Light service: 4 hours  
Return to service: 24 hours
- **Cure Time**  
Material sets in 5-15 minutes depending upon size of mass, ambient temperature and substrate temperature. Pedestrian traffic should be possible for product cured in moderate sized joint @ RT conditions. Cooler temperatures are likely to reduce the cure speed of the product.
- **Surface Preparation**  
Please refer to VFI specifications relating to your particular project.
- **Equipment**  
1:1 ratio equipment for pour operations or VFI Qwik Spray proportioners.
- **Packaging**  
300 x 300 dual cartridges  
750 x 750 dual cartridges  
    5 gallon pails  
    15 gallon ponies  
    55 gallon drums

CORPORATE OFFICE: /P.O. BOX 344 – BROOKFIELD, WI 53008 /800 307-9218 / 262 787-0400/FAX; 262 787-0500

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