



## VFI-4170 STRUCTURAL URETHANE PLASTIC

### Overview

- **Description**  
 VFI-4170 is a unique, low viscosity, 1 to 1 mix ratio urethane casting plastic system designed for easy processing and quick de-molding. This system produces a high hardness plastic with excellent strength and impact resistant properties.
- **Usage**  
 VFI-4170 applications include:
  - Casted industrial parts
  - Poured in place supports for equipment
  - Theming components and structures
  - High strength protective castings
- **Color**  
 Standard mixed color is white. For information on custom colors, contact Volatile Free, Inc.

### Physical Properties

- |   |                    |  |            |
|---|--------------------|--|------------|
| ■ <b>Hardness</b><br>ASTM D-2240<br>Shore A<br>Shore D              | N/A<br>70          | ■ <b>Tear Strength</b><br>ASTM D-624 (Die C) | N/A        |
| ■ <b>Tensile Properties</b><br>ASTM D-638<br>Strength<br>Elongation | 5400 psi<br>5% min | ■ <b>Solid Material Density</b>              | 66.35 pcf  |
|   |                    | ■ <b>Dimensional Stability</b><br>Shrinkage  | 0.01 in/in |
|   |                    | ■ <b>Fire Resistance</b>                     | Not Rated  |

### Liquid Component Properties

- |   |  |
|---|--|
| ■ <b>Ratio</b> <ul style="list-style-type: none"> <li>■ <b>By Volume:</b> 1A:1B</li> <li>■ <b>By Weight:</b> 100 A : 87.30 B</li> </ul> | ■ <b>Toxicity</b><br>ISO component contains MDI Isocyanate requiring respirator, gloves, eye protection and protective clothing during application.  |
| ■ <b>Solids</b><br>100%   | ■ <b>Reactivity</b> <ul style="list-style-type: none"> <li>■ <b>Pot Life:</b> 2.5 minutes at 77°F</li> <li>■ <b>De-mold Time:</b> 10 minutes at 77°F</li> </ul>  |
| ■ <b>Viscosity</b><br>Mixed<br>100-200 cps @ 77°F   | ■ <b>Storage Stability or Shelf Life</b><br><b>"A" side:</b> 6 months in unopened containers @ 60-90°F. The "A" side will chemically react with moisture. Store in tightly sealed containers without exposure to moisture.<br><br><b>"B" side:</b> 12 months in unopened containers @ 60-90° F. Keep unused material sealed to prevent moisture absorption from air. |
| ■ <b>Liquid Density &amp; Specific Gravity</b><br>"A" side 9.50 lbs/gal (SG 1.14)<br>"B" side 8.30 lbs/gal (SG 1.00)                    |  |
| ■ <b>VOC</b><br>Contains no volatile organic compounds.   |  |

---

## Application

---

- **Equipment**

Hand mix, machine mix or injection equipment. For equipment requirements and specific instructions, contact Volatile Free, Inc.

- **Material Preparation**

The product must be over 70°F for proper mixing. The Poly "B" side must be premixed slowly before using at low rpm to minimize air entrapment. Mix just enough to maintain a small vortex.

- **Mixing**

Hand mix thoroughly for 30 seconds minimum. Power mixing or meter mix equipment is mandatory for quantities over 1 gallon. Make sure to mix and scrape the bottom and sides of the container to ensure uniform mix. Do not scrape out material from sides when pouring onto intended surface.

- **Limitations**

To verify this product is appropriate for your specific application, consult with Volatile Free, Inc.'s technical department

- **Clean-up Solvent**

Xylene, MEK. For reduced fire hazard use glycol ethers or environmentally acceptable chlorinated solvents.

- **Precautions**

See Safety Data Sheet for complete safety data.

- **Thinning**

Do not thin this material with any solvents.

- **Packaging**

- 5 gallon pails
- 15 gallon ponies
- 55 gallon drums
- 270 gallon totes

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

Corporate Office: P.O. Box 344 • Brookfield, WI 53008 • (800) 307-9218 • (262) 787-0400 • Fax (262) 787-0500 • [www.volatilefree.com](http://www.volatilefree.com)

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, or any other matter with respect to this 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 special, exemplary, punitive, incidental or consequential damages of any sort or kind 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.