



## VFI-4171 STRUCTURAL URETHANE PLASTIC

### Overview

- **Description**  
 VFI-4171 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-4171 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

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|---|--|
| ■ <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> 5 minutes at 77°F</li> <li>■ <b>De-mold Time:</b> 35 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<br>"B" side  |  |
| ■ <b>VOC</b><br>Contains no volatile organic compounds.   |  |

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## Application

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- **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**

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