



## VFI-140 URETHANE ELASTOMER CASTING SYSTEM

### Overview

- **Description**  
 VFI-140 is a unique, moderate viscosity casting system designed for easy processing and rapid de-molding. This system produces a low hardness elastomer with excellent rebound properties.
- **Usage**  
 VFI-140 application possibilities include:
  - Potting of mechanical parts to control vibration
  - Poured-in-place supports for equipment
  - Resilient furniture parts
  - Low temperature flexible molds.
- **Color**  
 Standard color is light amber. For information on custom colors, contact Volatile Free, Inc.

### Physical Properties

- **Hardness**  
 ASTM D-2240  
 Shore A 55-57
- **Tensile Properties**  
 ASTM D-412  
 Strength 500 psi min  
 Elongation 961%  
 Elastic Modulus 127 psi  
 Permanent Set 20% max
- **Tear Strength**  
 ASTM D-624  
 Die C 96 pli
- **Solid Material Density**  
 pcf 66.41
- **Dimensional Stability**  
 Shrinkage 1.5% - 2.5% %  
 Depending upon cure temperature

### Weather & Environmental Performance

- **Service Temperature**  
 -40°F to 180°F
- **Weatherability QUV Test Data**  
 ASTM G-53  
 This is an aromatic polyurethane. UV light will change the appearance of this product.
- **Fire Resistance**  
 Not rated
- **Hydrolytic Properties**
  - **Water absorption**  
 24 hours at room temperature 2.86%.

### Liquid Component Properties

- **Ratio**
  - **By Volume**  
 1:1
  - **By Weight**  
 "A" side 102.4  
 "B" side 100
- **Yield**  
 in<sup>3</sup> per gallon 231
- **Solids**  
 100%
- **Viscosity**  
 "A" side 2750 cps @ 77°F  
 "B" side 1080 cps @ 77°F
- **Liquid Material Density & Specific Gravity**  
 "A" side 8.97 lbs/gal. (SG 1.076 g/ml)  
 "B" side (natural) 8.75 lbs/gal. (SG 1.050 g/ml)

- **VOC**  
Conforms to all air pollution regulations.  
Contains no volatile organic compounds.
- **Toxicity**  
ISO component contains polymeric Isocyanate requiring respirator, gloves and protective clothing during application.
- **Reactivity**
  - **Pot Life:** 3-4 minutes at room temperature.
  - **Gel Time:** When gelation occurs, the clear mixture forms a translucent, white, rubbery compound.
  - **De-mold Time:** Will be slightly tacky for some time, however, it can be de-molded after approximately 5 times the pot life.
- **Storage Stability or Shelf Life**
  - Films applied to cold surfaces may require up to 4 hours curing in order to reach the strength of a removable film. A faster curing product is available to meet needs for quicker cycling properties.
  - **Place-Into-Service Time:** 24 hours after application.
  - **Cure Time:** VFI-140 will reach maximum physical properties in 3 to 10 days.
- **Storage Stability or Shelf Life**
  - "A" side 6 months in unopened containers @ 50-90°F.
  - "B" side 12 months in unopened containers @ 50-90°F.

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## Application

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- **Equipment**  
Hand mix for small quantity. For equipment requirements and specific instructions, contact Volatile Free, Inc.
- **Material Preparation**  
The product must be over 70° F for proper mixing.
- **Mixing**  
Both Poly and ISO must be premixed before using.
- **Clean-up Solvent**  
Xylene, MEK. For reduced fire hazard use glycol ethers or environmentally acceptable chlorinated solvents.
- **Limitations**  
To verify this product is appropriate for your specific application, consult with Volatile Free, Inc.'s technical department.
- **Thinning**  
Not Recommended.
- **Precautions**  
See Safety Data Sheet for complete safety data.
- **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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