



VFI-640 PREMIUM GRADE ELASTOMERIC BASE COAT

Overview

■ **Description**

VFI-640 is a premium grade water-based elastomeric base coat which cures to form a seamless membrane when applied over the entire roof area. VFI-640 offers the unique ability to extend the life cycle of new and existing roof systems, in addition to keeping the surface cool, providing protection from ultraviolet sun and other weather exposures.

It is also used for achieving film build prior to top coating with VFI-605. It is formulated to achieve superior adhesion over metal, conventional built-up, modified bitumen, single-ply, concrete, board-stock and sprayed-in-place polyurethane foam, and composite shingle roof substrates. VFI-640 forms a waterproof elastomeric seal, uniformly covering the textured profile of these substrates.

■ **Usage**

- VFI-640 was especially developed for use in embedding reinforcement fabric at detail areas and/or over the entire roof.

■ **Color**

- Light gray or Medium gray

Features and Benefits

■ **Description**

- VFI-640 is compliant with the stringent standards of CRCC and the California Title 24 (white color only).
- Extends the useful life of the roof.
- Offers high tensile strength and elongation.
- Resistant to dirt pick up.
- Offers excellent resistance to extended exposure to solar ultraviolet energy.
- UL and FM approved.

- By decreasing roof surface temperature, VFI-640 can reduce energy costs.
- Fungal and algal resistant-even in high temperatures.
- Low VOC, non-flammable and presents minimal hazard to the applicator or the environment.

Physical Properties

■ **Elongation (%)**

- ASTM D 2370 200 +/-25

■ **Viscosity (cP)**

- Brookfield 4d/5 RPM/77°F 28,000 – 58,000

■ **Flexibility @ 0°F mandrel (pass/fail)**

- ASTM D 522B Pass

■ **Tensile Strength (psi)**

- ASTM D 2370 350 +/-50

Weather & Environmental Performance

■ **Service Temperature**

- 50°F to 120°F

■ **Fungi Resistance (pass/fail)**

- ASTM G 21 Pass

■ **Accelerated Weatherability @ 1000 hr (pass/fail)**

- ASTM D 4798 Pass

■ **Permeance (perms)**

- ASTM D 1653 27(wet), 13 (dry)

Liquid Component Properties

■ **Solids**

- Weight – ASTM D 1644 63%
- Volume - ASTM D 2697 51%

■ **pH (rating)**

- Std method >9

■ **Liquid Material Density & Specific Gravity**

- ASTM D 2939 11 +/- .5

■ **Storage Stability or Shelf Life**

Typically 18 months from date of manufacture when properly stored. Keep containers covered when not in use. Do not store at temperature greater than 120°F. Do not allow product to freeze. Discard if any degrees of freezing would occur.

■ **VOC**

- The volatile organic content is <50 grams per liter.
- Flash Point (°F) >212.

Application

- **Equipment**
Brush, Roller and high pressure sprayer for best appearance and coverage.
- **Material Preparation**
Do not apply at temperatures greater than 120°F. Store 24 hours at room temperature prior to application.
- **Mixing**
Stir well prior to application. To field tint this product, please use a water-based, exterior-grade pigment.
- **Clean Up**
Clean equipment and overspray with water. Clean hands with waterless hand cleaner.
- **Precautions**
See Safety Data Sheet for complete safety data and handling of the product.
- **Thinning**
Do not thin. Do not heat outside of container.
- **Packaging**
 - 5 Gallon Pail
 - 50 gallon Drum
 - 275 Gallon Tote
- **Substrate Preparation**
 - All surfaces to receive coating must be clean, dry and free from any foreign matter such as dirt, oils, grease or other debris that could inhibit the adhesion capabilities of the newly installed products.
 - Metal surfaces that display rusting or other oxidation, to be prepared with a grinder or wire brush as needed to remove surface contaminants.
 - Existing roof systems to be visually inspected for conditions that may adversely affect adhesion of performance of newly installed products, Repair any visible deficiencies such as splitting, blistering, and buckling with VFI-630 Flashing Grade and polyester fabric.
 - Visually inspect all metal and non-metal flashings, edges, drains, valleys and through-roof penetrations and repair as needed by project conditions.
 - Do not apply to wet or visibly damp surfaces, or surfaces previously covered with coal tar based products or Kynar finishes.
 - Concrete surfaces cured with wax/resin based compounds can inhibit adhesion.
 - Reinforce all “moving” cracks, seams, splits, control joints, vertical/horizontal interfaces, roof termination points, openings, transition areas, around the base of all vents pipes and other protrusions, as well as around HVAC units and other roof mounted equipment with VFI polyester reinforcement fabric, embedded into VFI-640.
- **Application**
 - Pre-measure the area to be reinforced and cut a strip of 4”, 6” or 12” polyester fabric, depending upon the detail, to the desired length.
 - Apply VFI-640 liberally over the area to be detailed, at a minimum rate of 1.5 gallons per 100 square feet per coat and embed the fabric so that is centered over the detail area. Use a 10” roofing brush on the end of an extension handle and, work the fabric into the VFI-640 Basecoat to eliminate air pockets, wrinkles and gaps. Apply additional VFI-640 Basecoat as necessary, at a minimum of 1 gallon per 100 square feet to ensure the fabric is thoroughly saturated, encapsulated and fully adhered to the substrate.
 - When incorporating fabric for reinforcement for the entire roof, apply VFI-640 Basecoat at the rate of 1.5 gallons per 100 square feet to a 4’ wide section of roof where the fabric reinforcement will begin. Embed and encapsulate the end of the reinforcement fabric roll so that it is anchored at that point.
 - Roll or spray VFI-640 Basecoat to a section of roof 4 to 10 feet beyond the fabric at the rate of approximately 1.5 gallons per 100 square feet. Roll the reinforcement fabric over the wet VFI-640 Basecoat, allowing the fabric to conform to the surface contours. To ensure complete encapsulation of the fabric, it must be rolled into the VFI-640 Basecoat while it is still wet. Do not allow the VFI-640 Basecoat to surface skin prior to rolling out the fabric.
 - Work the VFI-640 Basecoat evenly throughout the fabric so that it is totally saturated, eliminating any air pockets, wrinkles or gaps.
 - Apply an additional coat of VFI-640 Basecoat over the top of the saturated fabric at the rate of approximately 1 gallon per 100 square feet so that it is totally encapsulated. Take extra care to ensure that edges of the fabric are well saturated and adhered. Overlap consecutive passes of fabric a minimum of 2” on each side. Substrate porosity and texture will determine the amount of VFI-640 Basecoat required to encapsulate the reinforcing fabric.
 - Allow the VFI-640 Basecoat to dry thoroughly prior to applying VFI-605 Topcoat to the roof.
 - When using VFI-640 Basecoat to achieve film build prior to application of VFI-605 Topcoat, apply at the rate of 1 to 1-1/2 gallons per 100 square feet per coat to achieve the desired film thickness.
 - Apply only when ambient temperatures are 50°F and rising. Cold weather could result in uneven application and improper curing of product. Do not apply if there is a threat of inclement weather within 4 hours of application.
 - Prior to using this product on new cap sheets (smooth or granulated), it is recommended to wait 30 days for weathering.

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

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.