

E-84 FIRE RETARDANT PLASTIC ENCAPSULANT

- **Description**
VFI-2623 is a two component, 100% solids, 1:1 by volume, fast set, fire retardant, polyurethane coating.
- **Usage**
VFI-2623 is intended for use as a plural component spray applied coating for a variety applications (especially uses involving stringent safety codes) including but not limited to the following:
 - Structural coating with a very high modulus used for the protection of easily deformable substrates such as EPS and rigid foams.
 - Plastic coating that can be textured to splash-protect drywall, wood or other architectural substrates from many common liquids.
 - Structural for foam sculptures.
- **Color**
Neutral / beige. Cannot color the material without altering its combustion properties.

Physical Properties

- **Tensile Properties**
ASTM D-412

Tensile Strength:	3454 psi
Elongation:	17%
Yield Strength:	3130 psi
Elastic Modulus:	29,033 psi
- **Tear Resistance**
ASTM D-624 313 lb/in
- **Hardness**
ASTM D-2240
Shore D 73
- **Impact Resistance**
Unnotched Izod: @ 76°F 7.91 ft* lbs/in

Weather & Environmental Performance

- **Weatherability QUV Test Data**
QUV results indicate that yellowing might be discerned in VFI-2623 within a few days. This is not due to UV radiation, but rather due to the elevated temperature causing some of the FR agent to decompose therefore yellowing the film.
- **Fire Resistance**
ASTM E-84
Class 1 @ 30-40 mils thickness
Flame Spread: 15
Smoke: 340
- **Chemical Resistance**
Hydrolytic Stability: Recovers after 10 days immersion at 150°F. Generally resistant to most dilute aqueous agents when cleaned within 10 hours of contact. Keep the material clear of strong acids and bases as de-polymerization occurs rather rapidly causing reduced physical properties and fire retardance. Very difficult to stain by virtue of its high hardness and low porosity. Constant or frequent immersion service not recommended

Liquid Component Properties

- **Solids**
% Nonvolatile (wt): 100%
- **Viscosity**
Poly Components: 2500-3000 cps @ 77°F
Iso Component: 600-900 cps @ 77°F
- **Liquid Material Density & Specific Gravity**
Poly Component: 13.54 lbs/gal
Iso Component: 10.30 lbs/gal
- **Toxicity**
Iso component contains polymeric Isocyanate requiring fresh air supply respirator, gloves and protective clothing during application.
- **Reactivity**
Gel time: 14-20 sec @ RT
<4 sec @ 150°F

Application

■ Material Preparation

The product must be thoroughly power mixed, both the Poly and Iso component for a minimum of 15 minutes per drum with proper mixing equipment. A hand mixer is not adequate. For specific mixers, blade and shaft length, contact Volatile Free, Inc.

■ Equipment

Plural component, airless spray equipment capable of maintaining temperatures of 150-160°F, 3000 psi minimum pressure and a 1:1 volume mix ratio.

Compatible with a wide range of plural component spray guns. However, for detailed work, the Gusmer GX-8 and especially the Gusmer DI modification for the GX-7 are highly recommended. Contact Volatile Free, Inc. for specific instructions and spray equipment needed.

■ Cure Time

Applied coating will set in 1-2 minutes at 70°F, depending on film thickness, liquid material temperature, and the substrate temperature.

Product can be placed into service after 8 hours of cure time at 70°F minimum.

■ Post Finish

It is encouraged to begin priming or painting the plastic at the first time of cure (typically 1.5 minutes) to maximize adhesion.

■ Storage Stability

2 months in unopened containers at 50-80°F. Do not preheat over 100°F maximum without mixing.

■ Clean-up Solvent

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

■ Limitations

Contact VFI for appropriateness of this product for your specific application.

■ Precautions

See Material Safety Data Sheet for complete safety data. Protect from exposure to moisture. Water will cause the "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.

■ Thinning

Not Recommended

■ Packaging

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

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