

SPRAYABLE OR CASTABLE PLASTIC ENCAPSULANT FOR USE WITH THE QWIK-SPRAY SYSTEM

■ **Description**

VFI-2538 is a two component, 100% solids, one part iso to one part poly by volume, moderately fast cure polyurethane coating.

■ **Usage**

VFI-2538 is a plural component hydraulic (piston-proportioned) spray applied coating available in 600 & 1500 ml sets that has been found to have the following applications (among others):

- Impact resistant coating for the protection of easily deformable substrates such as EPS and insulative foams.
- Structural plastic for use in part fabrication where only a moderate level of impact resistance is required.

- Plastic coating which may be textured to splash protect drywall, wood or other architectural substrates from many common liquids.
- Aromatic base coat used to provide a continuous surface for stapled wood constructs.
- Structural for foam sculptures.
- Waterproof encapsulating material.
- Small castings measuring less than 1500 ml in total volume (with static mix tip).

■ **Color**

Neutral is typical. Many other colors may be available upon request – Contact Volatile Free, Inc. for details.

Physical Properties

■ **Weatherability**

QUV results indicate that yellowing may be visibly discerned in neutral or off-white in 2 – 3 months continuous exposure. Dark colors such as black may persist for almost a year before oxidative damage may manifest itself as chalking. Physical properties, however, do not typically show significant change for even longer periods of time.

■ **Chemical Resistance**

None.

Contact Volatile Free, Inc. for details.

■ **Chemical Resistance**

Hydrolytic Stability: Recovers after 10 days 150°F immersion. Generally resistant to most dilute aqueous agents when cleaned off within 10 hours of contact. Very difficult to stain by virtue of its high hardness and low porosity. Constant or frequent immersion service not recommended.

■ **Tensile Properties**

ASTM D-412	
Tensile Strength:	5626 psi
Elongation:	20 %
Yield Strength:	5354 psi
Elastic Modulus:	26,456 psi

■ **Tear Resistance**

ASTM D-624:	547 lb/in
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■ **Hardness**

ASTM D-2240	
Shore D:	69 - 71

■ **Impact Resistance**

Un-notched Izod:	8ft*lbs/in @ 73°F
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Liquid Component Properties

■ Solids

% Nonvolatile (wt): 100%

■ Viscosity

Poly Component:
1100 cps @ 77°F
Iso Component:
470 cps @ 77°F

■ Density

Poly Component:
8.4 lbs./gal.
Iso Component:
9.8 lbs./gal.

■ Flash Point

ASTM D-56 (TCC)
Greater than 200°F.

■ Toxicity

Iso component contains polymeric isocyanate requiring fresh air supply respirator, gloves, and protective clothing during application.

Application

■ Material Preparation

If you are packing your own mixing tubes, thoroughly power mix both the ISO and POLY components before beginning. If you were supplied with pre-packed tubes mixing is unnecessary.

■ Equipment

Plural component hydraulic caulk tube (140 PSI min) equipment that may accommodate either 300 ml or 750 ml cylinders, fitted with an atomizer tip if spraying is being performed or alternately with a static mix tube if castings are desired.

■ Reactivity

Set to touch @ RT ~ 80 sec
Print Free @ RT 5 – 7 min

■ Cure Time

Applied coating will set in 7 minutes at 70°F, depending on film thickness, liquid material temperature and the substrate temperature. Product can be placed into service after twenty four hours of cure time at 70°F minimum. It is encouraged to begin priming or painting the plastic at the first sign of cure (typically 7 minutes) to maximize adhesion. Pretest untried paint for adhesion!

■ Mixing

Volume
1 unit ISO : 1 unit POLY by volume.
Weight
1 unit ISO : 0.861 units POLY by weight.

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