

CASTABLE SOFT ELASTOMER

■ Description

VFI-2718 is a two component, 100% solids, one part iso to one part poly by volume, rapid cure aromatic polyurethane casting material which is distinguished by its high degree of softness and smooth surface.

■ Usage

VFI-2718 is a plural component low or high pressure RIM casting that has been found to have the following applications (among others):

- General purpose soft castings.
- Single shot material for open molded slab castings.

■ 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. Under high continuous heat or UV exposure the material may over time, unless protected by an aliphatic topcoat, harden up to 2 hardness points within three years.

If outdoor installation is expected it is highly recommended that the product be protected by a topcoat as indicated above.

■ Fire Resistance

Mild, but unrated.

Contact Volatile Free, Inc. for details.

■ Chemical Resistance

Not recommended for constant immersion service. Will resist damage from daily contact with mild detergents or cleaning agents.

■ Tensile Properties

ASTM D-412	
Tensile Strength:	1214 psi
Elongation:	744 %
Yield Strength:	111 psi
Elastic Modulus:	635 psi

■ Tear Resistance

ASTM D-624:	184 lb/in
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■ Hardness

ASTM D-2240	
Shore A:	70
Shore D:	20

Liquid Component Properties

■ Solids

% Nonvolatile (wt): 100%

■ Viscosity

Poly Component: 1000 cps @ 77°F

Iso Component: 1170 cps @ 77°F

■ Density

Poly Component: 8.8 lbs./gal.

Iso Component: 9.4 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

Thoroughly power mix ISO and POLY components separately before beginning to apply. Usually this takes a minimum of 15 minutes per drum with proper mixing equipment. For specific mixers, blade and shaft length, contact Volatile Free, Inc. A hand mixer is not adequate.

■ Equipment

A wide range of low and high pressure RIM / Pour equipment may be utilized. The best results come from equipment capable of maintaining the liquid temperature at 90 F. This material can also be batch mixed and poured by hand although this may introduce an undesirable number of bubbles in the final cast parts.

■ Reactivity

Gel time: 3 – 4 minutes @ RT
Demold Time: 30 minutes / warm Metal mold

■ Cure Time

Applied coating will set in 20 minutes at 70 F, depending on casting thickness, liquid material temperature and the mold temperature. Product can be placed into service after four hours of cure time at 70 F minimum. It is encouraged to begin priming or painting the elastomer at the first sign of cure (from 20 minutes to 2 hours) to maximize adhesion.

■ Mixing

Volume 1 unit ISO : 1 unit POLY by volume.
Weight 1 unit ISO : 0.939 units POLY by weight.

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