

50-2369FR FLAME RETARDANT THERMALLY CONDUCTIVE POLYURETHANE UL 94 V-0 LISTED

DESCRIPTION:

The 50-2369FR Potting and Encapsulating Compound has been formulated to meet the stringent non-burning requirements of UL94 V-0. 50-2369FR Urethane is listed with Underwriter's Laboratory for passing UL94 V-0. This system offers excellent heat transfer, low exotherm, and excellent electrical properties.

This system is a good choice for potting applications containing surface mount components or any application requiring low stress, thermal conductivity and flame retardancy. 50-2369FR is suitable for outdoor use.

FEATURES:

- Low viscosity
- Low stress on sensitive components
- Excellent electrical insulation
- Excellent water resistance
- Low shrinkage
- Thermal shock resistance
- Thermally conductive
- Flame retardant (UL 94 V-0 Listed)

TYPICAL PROPERTIES:

Viscosity, cps, 25 °C	
50-2369RFRGR Polyol	15,000
50-2369CFRTR Isocyanate	150
Color	Dark Gray
Hardness, Shore D	75
Mix Ratio, Polyol:Isocyanate	
By Weight	100:20
By Volume	100:26
Operating Temperature Range, °C	-65 to +135
Specific Gravity, 25 °C	
50-2369RFRGR Polyol	1.57
50-2369CFRTR Isocyanate	1.21
Elongation, %	20
Tensile Strength, psi	3,500

Dielectric Constant, 100 Hz	4.3
Dielectric Strength, V/mil	540
Volume Resistivity, ohm-cm	2.1×10^{14}
Surface Resistivity, ohms	6.0×10^{17}

Linear Shrinkage, %	0.2
Linear Thermal Expansion, ppm/°C	162
Thermal Conductivity, W/m·K	1.15
Thermal Shock, -65°C to + 130°C	Passes

Water Absorption, %	
24 hours Immersion	0.074
7 days Immersion	0.18
Fungus Resistant	Non – Nutrient

INSTRUCTIONS FOR USE:

1. Agitate 50-2369RFRGR Polyol thoroughly to re-disperse fillers. Settling during transit or storage is common.
2. By weight mix 100 parts 50-2369RFRGR polyol resin to 20 parts 50-2369CFRTR isocyanate.
3. Pour and cure according to one of the following schedules. Degas if necessary.

a) 25 °C	24 Hours
b) 60 °C	30-45 Minutes

STORAGE, HANDLING, & SAFETY:

This product should be stored at 25 °C in original tightly sealed containers. If containers are opened and the contents partially used, the material left in the container should be blanketed with dry nitrogen before sealing. The expected shelf life is 12 months in original containers.

Avoid using paper cups & wooden stirrers when mixing and weighing. Instead, use glass or metal.

50-2369 FR does not contain TDI or MOCA. It also has a low vapor pressure which greatly reduces the vapor hazard and toxicity associated with other commercially available urethanes.

Please read the Safety Data Sheet before using this or any other chemical.

AVAILABILITY:

This product is available in quarts, gallons, 5-gallon pails, and 55-gallon drums.

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