



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

## DESCRIPTION:

The 50-2369FR Potting and Encapsulating Compound has been formulated to meet the stringent non-burning requirements of UL94 V-0. 50-2369 FR 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. 50-2369 FR 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-O Listed)

## TYPICAL SPECIFICATIONS:

Standard Color	Black
Viscosity, cps	
Part A Polyol	15,000
Part B Isocyanate	150
Specific Gravity, 25 °C	
Part A Polyol	1.57
Part B Isocyanate	1.21
Hardness, Shore D	75
Tensile strength, psi	3,500
Elongation, %	20
Thermal Shock, 65 °C to + 130 °C	Passes
Linear shrinkage, %	0.2
Linear Thermal Expansion, in/in/°C	$16.2 \times 10^{-5}$
Thermal conductivity, btu·in/hr·ft <sup>2</sup> ·°F	8

**TYPICAL SPECIFICATIONS (continued):**

Water Absorption, %	
24 hours immersion	0.074
7 days immersion	0.18
Fungus Resistant	Non – Nutrient
Dielectric constant, 100 Hz	4.3
Dielectric Strength, V/mil	540
Volume Resistivity, ohm-cm	$2.1 \times 10^{14}$
Surface Resistivity, ohms	$6.0 \times 10^{17}$
Operating temperature range, °C	-65 to + 135°C

**INSTRUCTIONS FOR USE:**

- 1) Agitate Part A thoroughly to re-disperse fillers. Some settling during transit or storage is common.
- 2) By weight mix 100 parts 50-2369 FR Part A to 20 parts Part B. By volume 100 Parts A to 26 Parts B. Avoid using paper cups & wooden stirrers. Use glass or metal containers and stirrers.
- 3) Pour and cure according to one of the following schedules:
  - A. 25°C 24 hours
  - B. 60°C 2 hours
  - C. 100°C 20-30 minutes

**STORAGE & HANDLING:**

50-2369 FR should be stored at 65 – 85°F 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. Expected shelf life is 12 months in original unopened containers.

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 MSDS before using this or any other chemical.

**IMPORTANT:**

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