

# 50-2366FR

## THERMALLY CONDUCTIVE POLYURETHANE POTTING COMPOUND

### DESCRIPTION:

50-2366FR is a new thermally conductive polyurethane potting compound. This flexible system is designed for low stress on sensitive components during and after cure. 50-2366FR polyurethane resin system is formulated for applications requiring low exotherm, low shrinkage, 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. 50-2366FR is suitable for outdoor use.

For a very fast curing version of this product consider the 50-2370FR. This product will be tack free in 20 minutes.

### FEATURES:

- Low viscosity
- Excellent electrical insulation
- Low shrinkage
- Thermally conductive
- Low stress on sensitive components
- Excellent water resistance
- Thermal shock resistance
- Flame retardant

### TYPICAL PROPERTIES:

Viscosity, cps, 25°C	
Part A Polyol	17,000
Part B Isocyanate	150
Mixed	4,000
Color	Black
Hardness, Shore D	65
Operating Temp. Range, °C	-65 to + 135°C
Pot Life, 25°C	1 hour
Specific Gravity, 25°C	
Part A Polyol	1.56
Part B Isocyanate	1.21
Elongation, %	35
Linear Shrinkage, %	0.5
Tensile Strength, psi	2,200



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

Coefficient of Thermal Expansion, ppm/°C	162
Thermal Conductivity, W/m·°K	1.15
Thermal Shock, -65°C to + 130°C	Passes

Fungus Resistant	Non – Nutrient, Passes MIL-STD-810F
Water Absorption, %	
24 hours immersion	0.074
7 days immersion	0.18

**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 50-2366FR 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. Degas, pour, and cure according to one of the following schedules:
  - a) 25°C           24 hours
  - b) 60°C           20-30 minutes

**STORAGE, HANDLING, & SAFETY:**

Store both components at 25 °C in original containers. If the 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 unopened containers.

50-2366FR 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, and 5-gallon pails.

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