

# 50-2366 FR 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.

50-2366FR is fungus resistant and passes Fungus Resistance Testing (MIL-STD-810F, Method 508.5).

## FEATURES:

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

## TYPICAL SPECIFICATIONS:

Standard Color	Black
Viscosity, cps	
Part A Polyol	17,000
Part B Isocyanate	150
Specific Gravity, 25°C	
Part A Polyol	1.56
Part B Isocyanate	1.21
Hardness, Shore D	65
Tensile strength, psi	2,200
Elongation, %	35
Thermal Shock, -65°C to + 130°C	Passes
Linear shrinkage, %	0.5
Linear Thermal Expansion, in/in/°C	16.2 x 10 <sup>-5</sup>
Thermal conductivity, W/m- °K	1.15



**TYPICAL SPECIFICATIONS (continued):**

Water Absorption, %	
24 hours immersion	0.074
7 days immersion	0.18
Fungus Resistant	Non – Nutrient, Passes MIL-STD-810F
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 50-2366FR 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) 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:**

50-2366FR 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.

50-2366FR 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 Safety Data Sheet before using this or any other chemical.

**IMPORTANT:**

**EPOXIES, ETC. MAKES NO EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY, FITNESS OR OTHERWISE WITH RESPECT TO ITS PRODUCTS.** The information in this brochure is based on data obtained by our own research and is considered reliable. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. The properties given are typical values and are not intended for use in preparing specifications. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular purpose.

05/14