

50-2368FR THERMALLY CONDUCTIVE POLYURETHANE POTTING COMPOUND

DESCRIPTION:

50-2368FR is a thermally conductive polyurethane potting compound. This is a faster gelling version of 50-2366FR. 50-2368FR 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. 50-2368 FR is suitable for outdoor use.

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:

Viscosity, cps	
50-2368RFRBK Resin	17,000
50-2368CFRTR Catalyst	150
Mixed	4,000
Color	Black
Gel Time, Minutes	30
Hardness, Shore D	65
Mix Ratio, Resin:Catalyst	
By Weight	100:20
By Volume	100:26
Operating Temperature Range, °C	-65 to +135
Specific Gravity, 25°C	
50-2368RFRBK Resin	1.56
50-2368CFRTR Catalyst	1.21
Elongation, %	35
Tensile Strength, psi	2,200
Dielectric Constant, 100 Hz	4.3
Dielectric Strength, Volts/mil	540
Surface Resistivity, ohms	6.0×10^{17}
Volume Resistivity, ohm-cm	2.1×10^{14}



Linear Shrinkage, %	0.5
Linear Thermal Expansion, in/in/°C	16.2 x 10 ⁻⁵
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

INSTRUCTIONS FOR USE:

1. Agitate 50-2368RFRBK resin thoroughly to re-disperse fillers. Some settling during transit or storage is common.
2. By weight mix 100 parts 50-2368RFRBK resin to 20 parts 50-2368CFRTR.
3. Pour and cure according to one of the following schedules:
 - a) 25°C 12-18 Hours
 - b) 60°C 30-45 Minutes

STORAGE & HANDLING:

Store both components 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 or wooden stirrers. Use glass or metal instead.

50-2368 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, and 5-gallon pails.

IMPORTANT:

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