EPOXIES
INNOVATIVE BONDING SOLUTIONS ETC.

TECHNICAL BULLETIN

50-3253FR
FLAME RETARDANT THERMALLY CONDUCTIVE EPOXY RESIN

DESCRIPTION:

50-3253FR Potting and Encapsulating Compound has been formulated to meet the stringent non-burning requirements of UL 94 V-0. This medium viscosity system offers high thermal conductivity, low shrinkage, low exotherm, and outstanding electrical insulation properties. The high thermal conductivity helps extend the life of assemblies by quickly dissipating heat away from critical components.

50-3253FR is designed for ease of use. It has a convenient 1:1 mix ratio. Typical applications for the 50-3253FR include potting and encapsulating power supplies, transformers, batteries, coils, insulators, sensors, etc. The 50-3253FR is an excellent choice for applications that require a flame-retardant compound with high thermal conductivity.

FEATURES:

- Thermally Conductive
- Easy 1:1 Ratio
- Shock and Vibration Resistant
- Flame Retardant

BENEFITS:

- Protects electronics by quickly transferring heat
- Ideal for use with meter mix dispense equipment
- Will not damage electronic components
- Meets UL94V-0 non-burning requirements

TYPICAL PROPERTIES:

Viscosity, cps, 25 °C	
50-3253RFRBK Resin	60,000
50-3253CFRTA Catalyst	64,000
Mixed	60,000
Mix Ratio, (Resin:Catalyst)	
By Weight	1:1
Color	Black
Hardness, Shore D, 25 °C	80
Operating Temperature, °C	-65 to +155
Pot Life, 100 grams, 25 °C, minutes	100
Specific Gravity, 25°C	
50-3253RFRBK Resin	1.6
50-3253CFRTA Hardener	1.49
Dielectric Constant, 25 °C, 100 Hz	5.0
Dielectric Strength, V/mil	485
Volume Resistivity, ohm-cm, 25 °C	7.6×10^{13}
Thermal Conductivity, W/m·K	2.16

epoxies.com
21 Starline Way
Cranston, RI 02921 USA
t 401.946.5564
f 401.946.5526

INSTRUCTIONS FOR USE:

Note: Mix 50-3253RFRBK resin and 50-3253CFRTA catalyst thoroughly to re-disperse fillers. Some settling during transit or storage is common. Warming resin to 40C prior to mixing will improve air release and lower viscosity.

1. Mix equal parts 50-3253RFRBK resin to 50-3253CFRTA by weight.
2. To ensure void free castings material can be vacuum degassed.
3. Pour and cure according to one of the following cure schedules:
    a) 25 °C 24-48 Hours
    b) 65 °C 2-3 Hours
    c) 100 °C 30 Minutes

STORAGE, HANDLING, & SAFETY:

Store both components at 25 °C in original containers. The expected shelf life is 12 months in original containers.

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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