

50-3151 FR FLAME RETARDANT THERMALLY CONDUCTIVE EPOXY RESIN

DESCRIPTION:

50-3151 FR has been formulated to meet the stringent non-burning requirements of UL 94 V-O. This system offers excellent heat transfer, low shrinkage, and outstanding insulation properties. 50-3151 FR is low in viscosity and therefore offers outstanding flow around components.

Typical applications for 50-3151 FR include encapsulating power supplies, transformers, coils, insulators, sensors, etc... This system is an excellent choice for applications requiring high thermal conductivity, flame retardancy, and low viscosity.

TYPICAL SPECIFICATIONS:

Viscosity @ 25°C cps, resin	13,000 cps
Specific Gravity, 25°C/25°C	1.7
Hardness, Shore D	90
Color	Black
Tensile Strength, psi	9850
Linear shrinkage, in/in	.002
Operating Temp. Range, °C	-65 to +190
Dielectric Strength, Volts/Mil	485
Dielectric Constant at 60 Hz	5.6
Volume Resistivity, Ohm cm at 25 °C	1.5×10^{15}
Dissipation Factor, 60 Hz	.015
Thermal Conductivity, btu/hr/ft ² /°F/in.	9.0
Compressive strength, psi	15,000
Coefficient of expansion, in/in °F	1.4×10^{-5}

INSTRUCTIONS FOR USE:

- A. With catalyst 190 (room temperature curing):
 1. By weight, thoroughly mix 5 parts catalyst 190 to 100 parts 50-3151 FR resin.
 2. Degas and pour. Cure at room temperature for 24 hours at 25°C ambient.
- B. With catalyst 105 (heat curing):
 1. By weight, thoroughly mix 6 parts catalyst 105 to 100 parts 50-3151 FR resin.
 2. Degas and pour. Cure at 100°C for two hours.
- C. With catalyst 150 (room temperature/heat curing):
 1. By weight, thoroughly mix 17 parts catalyst 150 to 100 parts 50-3151 FR resin.
 2. Degas and pour. Cure at room temperature for 24 hours or for 2-3 hours at 60°C.
- D. With Catalyst 196 (room temperature curing/heat curing):
 1. By weight, thoroughly mix 11-12 parts Catalyst 196 to 100 parts 50-3151 FR resin.
 2. Degas and pour. Cure at room temperature for 24 hours or for 2-3 hours at 60°C.



E. With catalyst 30 (heat curing):

1. By weight, thoroughly mix 11 parts catalyst to 100 parts 50-3151 FR resin.
2. Degas and pour. Cure for 2 hours at 80°C. A post cure of 3 hours at 150°C provides optimum heat and chemical resistance.

NOTE:

Settling of filler is common in this low viscosity resin. Mix resin thoroughly in original container prior to use.

IMPORTANT:

The information in this brochure is based on data obtained by our own research and is considered accurate. 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. 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.

03/08