

50-3151 NC FR FLAME RETARDANT THERMALLY CONDUCTIVE EPOXY RESIN

DESCRIPTION:

50-3151 NC FR has been formulated to meet the stringent non-burning requirements of UL 94 V-0. This system offers excellent heat transfer, low shrinkage, and outstanding insulation properties. 50-3151 NC FR is low in viscosity and therefore offers outstanding flow around components.

Typical applications for 50-3151 NC 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	9,850
Linear shrinkage, in/in	.002
Operating Temp. Range, °C	-65 to +190
Dielectric Strength, V/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, W/m- °K	1.3
Compressive strength, psi	15,000
Coefficient of expansion, in/in °F	1.4×10^{-5}

INSTRUCTIONS FOR USE:

A. With Catalyst 190:

1. By weight, thoroughly mix 5 parts Catalyst 190 to 100 parts 50-3151 NC FR Resin.
2. Degas and pour. Cure at room temperature for 24 hours at 25°C ambient.

B. With Catalyst 150:

1. By weight, thoroughly mix 17 parts Catalyst 150 to 100 parts 50-3151 NC FR Resin.
2. Degas and pour. Cure at room temperature for 24 hours or for 2-3 hours at 60°C.

C. With Catalyst 30 (Recommended for higher operating temperature and physical property applications):

1. By weight, thoroughly mix 11 parts Catalyst to 100 parts 50-3151NC FR Resin.
2. Pour and cure according to one of the following recommended cure schedules:
 - a) 85°C (185°F) 3-4 hours
 - b) 100°C (212°F) 2-3 hours

For optimum performance, an additional 2 hours @ 365°F (185°C) is recommended.



NOTE:

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

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