

TECHNICAL DATA SHEET FARBOSET® 9146 BLACK

Cosmic FARBOSET 9146 nonanhydride dielectric grade epoxy powder coating is formulated to provide superior electrical and moisture resistance properties. It is designed for encapsulation of hybrids, mica capacitors, and other semiconductor grade devices requiring very high purity and optimum moisture performance. FarboSet 9146 is an ideal candidate for chip on board applications due to its excellent adhesion characteristics.

PHYSICAL PROPERTIES

Specific Gravity	1.41
Edge Coverage, %, ASTM D 2967	35
Water Absorption, %, 24 hrs., 23°C	0.07
Coefficient of Thermal Expansion, cm/cm/°C, x 10 ⁻⁶	38
Glass Transition Temperature, T _g , °C	160

POWDER PROPERTIES

Hot Plate Gel Time, 150°C, seconds	45
Plate Flow, mm, 150°C/60° angle	35
Particle Size, U.S. Mesh, %	
+80, maximum	1
- 325	30 ± 3
Storage Life: 4 ⁰ C (40 ⁰ F), months	12**
21 ⁰ C (70 ⁰ F), weeks	4**

* As tested in the FarboSet Technical Service Laboratory** Defined as not more than 40% loss of spiral flow based on original values.

ELECTRICAL PROPERTIES

Dielectric Constant, 1 KHz	3.5
Dissipation Factor, 1 KHz	0.005
Loss Factor, 1 KHz	0.018
Dielectric Strength, v/mil	900

APPLICATION DATA

This powder is designed for application and cure at temperature between 125°C to 175°C. It can be applied using fluidized bed, wheel coaters, or electrostatic spray techniques. Typical cure schedules at several temperatures are shown.

Temperature	Time
125°C	60 min
150°C	30 min

All tests are performed at room temperature (22°C) unless otherwise specified. All test specimens are transfer molded. Data represents typical values and should not be considered specifications.

All data is based on the best information possible and is obtained from specimens molded under carefully controlled conditions. Properties may be affected by the molding techniques applied and by the size and shape of the item molded. All information is presented without any guarantee, warranty or responsibility of any kind, expressed or implied, on Cosmic Plastics' part.