



ISO 9001-2015 Certified

718 Park East Drive
Woonsocket, RI 02895, USA
Phone: (401) 726-4500

info@epoxyset.com ■ Web: www.epoxyset.com

EPOXICAST™ EC-1019 THERMALLY CONDUCTIVE POTTING COMPOUND

EC-1019 encapsulant is a two-component, low viscosity epoxy system designed for encapsulation of motor stators, transformer coils, and other devices with small-diameter, tightly packed windings. EC-1019 encapsulant provides high-temperature stability combined with excellent electrical insulation. Features include excellent Heat Dissipation to provide lower motor end winding temperatures during high-power operation. It is low viscosity with fine particle fillers and self-levels to fill voids in motor stators/rotors, transformer coils and other electrical devices. This durable epoxy material resists cracking during multiple thermal cycles from sub-zero temperatures to 200°C.

TYPICAL HANDLING PROPERTIES:

Resin (R)	PART A
Hardener (H)	PART B
Mix ratio by weight, (R/H)	100/100
Viscosity, 60°C, cPs	
PART A	5000-9000
PART B	1500-3000
Pot life (100 gram) at 60°C, hrs	>3
Recommended Cure	2 hrs @ 100°C + 1 hrs @ 150°C
Alternate Cure	4 hrs @ 125°C

TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Black
Specific Gravity	2.7
Hardness, Shore D	92
Tensile Strength, psi	8,000
Compressive Strength, psi	9,200
Flexural Strength, psi	15,500
Thermal Conductivity, W/mK	2.20
Service temperature range, °C	-40 to 220
Glass Transition Temperature, °C	145
Coefficient of Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	22
Above Tg	85
Flexural Strength, psi	14,000
Flexural Modulus, psi	1x10 ⁶
Dielectric Strength, Volts/mil	450
Dielectric Constant at 1 kHz	3.9
Dissipation Factor at 1 kHz	0.09
Volume Resistivity, ohm-cm	1.0 x 10 ¹⁵

INSTRUCTIONS FOR USE:

Filler settlement of the PART A & B may occur. Mix well before use. Lack of adequate remixing may affect performance of the material.

1. Weigh each 100 grams of PART A to 100 grams of PART B.
2. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
3. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
4. Typical cured properties were determined using recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

AVAILABILITY:

2 parts Kit - Packaged in Quart, Gallon, and 5-Gallon size.

SHELF LIFE & STORAGE:

Shelf life is 12 months from date of manufacture in unopened original containers. These materials should be stored between 18-25°C (64-77°F) in a dry environment. Storage outside these conditions may effect performance and/or usage.

FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Adequate ventilation of workplace and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Safety Data Sheet (**SDS**) for additional health and safety information.

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.