



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

EPOXICAST EC-1190 LOW DENSITY EPOXY POTTING COMPOUND

EC-1190 is an epoxy encapsulating system with a very low density for use in the aerospace and medical industries. EC-1190 is low viscosity and can cure at room temperature when used with catalyst EH-21. EC-1190 has excellent chemical resistance and a low coefficient of thermal expansion (CTE).

Hardener	EH-21	EH-75
Mix ratio by weight, phr	19	16
Mixed Viscosity at 25°C, cp	2000-3000	4,000-6,000
Pot life at 25°C (500 gram)	1-2 hrs	3-4 hrs
Recommended Cure	3 hrr/65°C	3 hrs/80°C
Alternate Cure	24-48 hr/25°C	6-8 hr/65°C
Color	Charcoal	Charcoal
Specific Gravity	0.74	0.76
Hardness, Shore D	86	91
Flexural Strength, psi	6500	6700
Compressive Strength, psi	8000	8000
Linear Shrinkage (%)	0.02	0.06
% Water Absorption (24 hr immersion at RT)	0.4	0.3
Glass Transition Temperature (Tg), °C	60	85
Coefficient of Thermal Expansion, ppm/°C (<Tg)	45	45
Dielectric Strength, Volts/mil	380	375
Dielectric Constant at 1 kHz	2.7	2.9
Dielectric Constant at 1 MHz	2.3	2.7
Dissipation Factor at 1 kHz	0.03	0.05
Volume Resistivity, ohm-cm	> 1.0x10 ¹³	1.0x10 ¹³

INSTRUCTIONS FOR USE:

The individual components containing fillers should be stirred or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties; accurate proportioning and thorough mixing are essential.

Mix contents thoroughly each time before removing material. To each 100 grams of Epoxicast EC-1190, add appropriate amount of Hardener of your choice and mix it well preferably using a mechanical mixer. Vacuum degasses for about five minutes to remove any dissolved or entrapped air. Proceed with the bonding application and cure as recommended.

FOR INDUSTRIAL USE ONLY:

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Although the system contains low volatility materials, care should be taken in handling. 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 Material Safety Data Sheet for additional health and safety information.

SHELF LIFE:

The shelf life of these materials is greater than one year when stored in unopened containers at an average temperature of 25°C.

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.