



ISO-9001-2008 Certified

TECHNICAL BULLETIN

EPOXICAST™ EC-1028/EH-21 MACHINABLE CASTING AND POTTING COMPOUND

EC-1028/EH-21 is a filled epoxy resin system, which combines good handling characteristics with excellent cured properties. Its low viscosity allows good flowability and air release. Cured epoxy is readily machinable with standard cutting tools. EC-1028 with EH-21 gives an excellent room temperature cure potting compound and is non-hazardous for shipping.

It is useful for general purpose casting, potting or encapsulating intricate circuits, operational amplifiers, transformers, and other electric/electronic components.

TYPICAL HANDLING PROPERTIES:

Epoxicast	EC-1028
Hardener	EH-21
Mix ratio by weight, (Epoxicast/Hardener)	100/1
EC-1028 viscosity at 25°C, cp	15,000-25,000
Mixed viscosity at 25°C, cp	2500-5000
Pot life at 25°C (100 gram), minutes	90-120
Recommended Cure	3 hrs @ 65°C
Alternate Cure	24 hrs @ 25°C

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Gray
Specific Gravity	1.52
Hardness, Shore D	85
Linear Shrinkage (%)	0.01
Water Absorption (24 hr at RT), %	0.02
Thermal Conductivity, Btu.in/hr.°F.Ft ²	4.2
Service temperature range, °C	-55 to 130
Glass Transition Temperature, °C	85
Coefficient of Thermal Expansion, 10 ⁻⁶ /°C	
Below Tg	45
Above Tg	130
Flexural Strength, psi	15,500
Flexural Modulus, psi	4x10 ⁶
Dielectric Strength, Volts/mil	470
Dielectric Constant at 1 kHz	4.5
Dissipation Factor at 1 kHz	0.01
Volume Resistivity, ohm-cm	2.0x10 ¹⁵

INSTRUCTIONS FOR USE:

Stir well the contents of each container every time before removing material. If the contents are hard or lumpy, warm to 80°C and mix thoroughly before removing material.

1. Weigh each 100 grams of EC-1028 to 12 grams of Hardener EH-21.
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 Pint, Quart, Gallon, and 5-Gallon size.

FOR INDUSTRIAL USE ONLY:

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

WARNING!

Adequate ventilation of work place 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 (**MSDS**) for additional health and safety information.