

Product
Bulletin**E40-413****1:1 Ratio, Fire Retardant and Room Temperature
Curing Epoxy Resin System For Potting, Casting,
And Encapsulation****GENERAL DESCRIPTION**

E40-413 is a new general-purpose low viscosity epoxy resin system designed for ease in handling and convenience of the end user.

E40-413 has been developed and engineered for use in a wide variety of electrical applications requiring fire retardant packaging. This resin system is available from stock in a broad range of colors and packaging sizes.

E40-413 is based on a primary aliphatic amine curing epoxy, which cures at room temperature or with mild heat to exhibit outstanding physical, thermal, and electrical insulation properties. In addition, this unique resin system is characterized by low shrinkage, high tensile and compressive strength, as well as excellent thermal shock and impact resistance.

The non-critical mix ration, low viscosity, low toxicity, ease in handling, and non-settling properties make E40-413 the ideal choice for a wide range of electrical, potting, and encapsulation applications.

E40-413 is recommended for the encapsulation and potting of coils, capacitors, chokes, resistors, solenoids, transformers, rectifiers, electronic assemblers, etc.

APPLICATION

1. By weight or volume, thoroughly mix equal proportions of resin to catalyst.
2. Pour and allow to cure overnight at room temperature or with mild heat.

SPECIFICATIONSHANDLING CHARACTERISTICS

Catalyst Number: Catalyst 413
Mix Ratio, Catalyst to Resin, by Weight: 1:1
Workable Pot Life, 100 g @ 25°C: 75 min.
Resin Viscosity @ 25°C cps: 55,000
Catalyst Viscosity @ 25°C cps: 15,000
Recommended Cure: overnight @ room temp.

PHYSICAL CHARACTERISTICS

Shrinkage Linear, in / in: 0.004
Hardness, Shore D: 75
Specific Gravity, 25°C / 25°C: 1.48
Tensile Strength, psi: 11,000
Compressive Strength, psi: 15,500

THERMAL CHARACTERISTICS

Thermal Conductivity, btu / hr / ft² / °F / in: 4.2
Thermal Expansion Coefficient,
(cm / cm / °C · 10⁻⁵): 2.7
Operating Temperature Range, °C: -60 to +150

ELECTRICAL CHARACTERISTICS

Dielectric Strength, volts / mil: 460
Dielectric Constant, 60 Hz: 4.3
Dissipation Factor, 60 Hz: 0.02
Volume Resistivity, ohm · cm: 2.1 x 10¹⁵