

**Product
Bulletin**

E40-408

Designed for potting, casting, and encapsulating. Low shrinkage, high tensile with temperature service from -50 to 180°C.

GENERAL DESCRIPTION

E40-408 is a very low viscosity general purpose-purpose epoxy casting, potting and encapsulating resin system. This unique resin system has been formulated to combine ease in handling with the optimum in physical, thermal, and electrical insulation properties.

E40-408 is characterized by low shrinkage, high tensile and compressive strength as well as high operation temperature service from -50 to 180°C. In addition, E40-408 exhibits outstanding thermal shock and impact resistance properties.

A choice of catalyst is provided in order to meet a wide variety of electrical and electronic encapsulation applications.

Catalyst 408A is designed for applications requiring a room temperature curing system with excellent physical and electrical properties with a service temperature up to 140°C.

Catalyst 408B is designed for applications requiring the optimum in electrical, physical and thermal properties with a service temperature up to 180°C.

APPLICATION (with Catalyst 408A)

1. By weight, thoroughly mix 6-7% Catalyst 408A to E40-408 resin.
2. Due to the very low viscosity, vacuum de-aeration is not normally required.
3. Pour and allow to cure 8-12 hours at room temperature.

SPECIFICATIONS
HANDLING CHARACTERISTICS

Catalyst Number: Catalyst 408A or 408B

Workable Pot Life, 100 g @ 25°C:

Catalyst 408A: 20 min.

Catalyst 408B: 4 hrs.

Mixed Viscosity @ 25°C cps: 6,000

Color: Black

PHYSICAL CHARACTERISTICS

Shrinkage Linear, in / in: 0.0018

Hardness, Shore D: 88

Specific Gravity, 25°C / 25°C: 1.5

Tensile Strength, psi: 7,500

Compressive Strength, psi: 16,000

THERMAL CHARACTERISTICS

Thermal Conductivity, btu / hr / ft² / °F / in: 4.5

Thermal Expansion Coefficient,

10⁻⁵ · cm / cm / °C: 2.81

Operating Temperature Range, °C: -50 to +180

ELECTRICAL CHARACTERISTICS

Dielectric Strength, volts / mil: 460

Dielectric Constant, 60 Hz: 4.6

Dissipation Factor, 60 Hz: 0.02

Volume Resistivity, ohm · cm: 3.5 x 10¹⁴

APPLICATION (with Catalyst 408B)

1. By weight, thoroughly mix 8% Catalyst 408B to E40-408 resin.
2. Due to the very low viscosity, vacuum de-aeration is not normally required.
3. Pour and cure 2-3 hours at 210°F to 220°F. Casting larger than ½ lb. (227 g) should be cured 8 hours at 150°F or 24 hours at room temperature plus 1 hour at 210°F.