

Product  
Bulletin**E40-403**

A potting and casting resin that is reinforced with fiberglass for large unit encapsulation. Low thermal coefficient of expansion.

**GENERAL DESCRIPTION**

E40-403 is a general purpose potting and casting resin that is reinforced with fiberglass for large unit encapsulation.

This unique resin system is characterized by low thermal coefficient of expansion, and eliminates internal stress between substrates with a wide divergence of expansion coefficients.

E40-403 is characterized by low shrinkage, high tensile, and compressive strength as well as high operating temperature service.

The fiberglass reinforcement prevents stress cracking and adds additional physical strength for large castings.

Typical applications include encapsulation of high voltage units such as power supplies, transformers, high voltage insulators, regulators, etc.

Excellent adhesion to metals, plastics, ceramics, copper, aluminum and glass is inherent to the cured resin along with maximum electrical properties.

E40-403 is readily available from stock in quart, gallon, 5 gallon and 55 gallon containers.

**APPLICATION**

1. By weight, thoroughly mix 18 parts catalyst to 100 parts resin base.
2. Due to the low viscosity of E40-403, vacuum de-aeration is not normally required.
3. Pour and allow to gel 8 to 12 hours @ room temp.
4. Then cure @ 100°C for 3 hours.

**SPECIFICATIONS**HANDLING CHARACTERISTICS

Catalyst Number: Catalyst 403

Mix Ratio, Catalyst to Resin, by Weight: 18:100

Workable Pot Life, 100 g @ 25°C: 6-8 hrs.

Mixed Viscosity @ 25°C cps: 5,000

Recommended Cure: 8-12 hrs. @ room temp.

Color: Black

PHYSICAL CHARACTERISTICS

Shrinkage Linear, in / in: 0.005

Hardness, Shore D: 75

Specific Gravity, 25°C / 25°C: 1.45

Tensile Strength, psi: 10,500

Compressive Strength, psi: 16,000

THERMAL CHARACTERISTICS

Thermal Conductivity, btu / hr / ft<sup>2</sup> / °F / in: 3.4

Thermal Expansion Coefficient,

(cm / cm / °C · 10<sup>-5</sup>): 2.7

Heat Distortion, °C: 95

Operating Temperature Range, °C: -55 to +170

ELECTRICAL CHARACTERISTICS

Dielectric Strength, volts / mil: 480

Dielectric Constant, 60 Hz: 4.2

Dissipation Factor, 60 Hz: 0.018

Volume Resistivity, ohm · cm: 1.5 x 10<sup>16</sup>