

40A / Electrical Encapsulant

Soft, abrasion resistant elastomer

Key Properties

- Excellent electrical properties, hydrolytic stability, and flexibility at low temperatures
- Excellent physical properties
- Free of mercury, MOCA or TDI

Applications

- For room temperature hand-batch processing

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	100
		pbv	90	100
Density	ASTM D-792	g/cm ³	ca. 1.11	ca. 1.00
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 50	ca. 4,800

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 1,200
Gel time at 77°F (25°C)		min	15-25
Demold time at 77°F (25°C)		h	5-7

Cured / Mechanical Properties (approximate values)

Cure 1: 24 hours at 77°F + 16 hours at 160°F

			Cure 1
Aspect	visual		Clear Amber
Density	ASTM D-792	g/cm ³	N/A
Shore hardness A	ASTM D-2240		35-45
Tensile strength	ASTM D-638	psi	400
Elongation at Break	ASTM D-638	%	200
Tear strength	ASTM D-624	pli	75
Volume Resistivity	ASTM D-270	Ω-CM	2.0 x 10 ¹⁶
Surface Resistivity	ASTM D-270	Ω-CM	2.8 x 10 ¹⁶
Dielectric Strength (25°C)	ASTM D-149	V/MIL	550
Dielectric Constant (25°C)	ASTM D-150		2.5
Dissipation Factor (1 kHz, 25°C)	ASTM D-150		0.015

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Processing

The processing and material temperature should be between 68-77°F (20-25°C).

IE-3500 is ideal for use in many electrical applications including cryogenic potting, ballasts, transformers, and circuit embedment.

Agitate the resin before mixing to ensure a homogenous formulation.

Packaging

IE-3500 Quart Kit	3.5 lbs.
IE-3500 1 Gal. Kit	14 lbs.
IE-3500 5 Gal. Kit	70 lbs.
IE-3500 Drum Kit	700 lbs.

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures 59-86°F (15°C to 30°C). If properly stored the products have the shelf-life indicated on the product label.

Partly used containers should always be sealed appropriately and used up as soon as possible.

Handling Precautions

Good workplace ventilation is to be ensured during processing. At the same time, the employer's liability insurance association's industrial hygiene safety regulations regarding the handling of reaction resins and their hardeners are to be observed. Please take heed of the appropriate safety data sheets.
