

70A / Electrical Encapsulant

Tough, 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	59	100
		pbv	39	100
Density	ASTM D-792	g/cm ³	ca. 1.18	ca. 0.93
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 50	ca. 5,200

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 2,000
Gel time at 77°F (25°C)		min	16-20
Demold time at 77°F (25°C)		h	3-5

Cured / Mechanical Properties (approximate values)

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

			Cure 1
Aspect	visual		Cream
Density	ASTM D-792	g/cm ³	0.97
Shore hardness A	ASTM D-2240		65-75
Tensile strength	ASTM D-638	psi	800
Elongation at Break	ASTM D-638	%	300
Tear strength	ASTM D-624	pli	125
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	570
Dielectric Constant (25°C)	ASTM D-150		2.4
Dissipation Factor (1 kHz, 25°C)	ASTM D-150		0.014

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Processing

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

IE-3700 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-3700 Quart Kit	2.62 lbs.
IE-3700 1 Gal. Kit	10.5 lbs.
IE-3700 5 Gal. Kit	52.5 lbs.
IE-3700 Drum Kit	600 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.
