

93A / Mass Casting Urethane

Tough, abrasion resistant elastomer

Key Properties

- Excellent physical properties after RT cure
- Free of mercury, MOCA or TDI

Applications

- For room temperature hand-batch processing

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	34
		pbv	100	32
Density	ASTM D-792	g/cm ³	ca. 1.11	ca. 1.16
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 4,500	ca. 2,400

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 5,000
Gel time at 77°F (25°C)		min	20-30
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 150°F

Cure 2: 7 days at 77°F

			Cure 1	Cure 2
Aspect	visual		Amber	Amber
Density	ASTM D-792	g/cm ³	1.12	1.12
Shore hardness A	ASTM D-2240		90-96	90-96
Tensile strength	ASTM D-638	psi	2,700	1,500
Elongation at Break	ASTM D-638	%	58	113
Tear strength	ASTM D-624	pli	300	175
Linear shrinkage	ASTM D-2566	in/in	.002	.002

93A / Mass Casting Urethane

Tough, abrasion resistant elastomer

Processing

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

For best results, de-air the material prior to casting, then pressurize to 60 psi until cured.

The hardener component will darken as it ages. It is recommended that dry nitrogen be used to blanket the material to prevent or lengthen the time that it takes for this oxidization to occur. This oxidization can also occur with the cured materials, causing them to darken as they age.

Packaging

IE-3643 Quart Kit	2.68 lbs.
IE-3643 1 Gal. Kit	10.72 lbs.
IE-3643 5 Gal. Kit	53.6 lbs.
IE-3643 Drum Kit	603 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.
