

80A / 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
- For very large parts as well as mass casting and tooling

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	25
		pbv	100	26
Density	ASTM D-792	g/cm ³	ca. 1.13	ca. 1.09
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 3,650	ca. 100

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 3,000
Gel time at 77°F (25°C)		min	20-30
Demold time at 77°F (25°C)		h	4-8

Cured / Mechanical Properties (approximate values)

Cure 1: 24 hours at 77°F + 16 hours at 150°F			Cure 1
Aspect	visual		Translucent Amber
Density	ASTM D-792	g/cm ³	1.10
Shore hardness A	ASTM D-2240		75-85
Tensile strength	ASTM D-638	psi	1,000
Elongation at Break	ASTM D-638	%	185
Tear strength	ASTM D-624	pli	150
Notched Izod	ASTM D-256	ft·lbf/in	6.0
Linear shrinkage	ASTM D-2566	in/in	.004

80A / 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-3642 Quart Kit	2.5 lbs.
IE-3642 1 Gal. Kit	10 lbs.
IE-3642 5 Gal. Kit	50 lbs.
IE-3642 Drum Kit	562.5 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.
