

40D Light Color / Mass Casting

Slow reacting polyurethane

Key Properties

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

Applications

- For room temperature hand-batch or vacuum assisted casting methods
- For translucent mass castings

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	20
		pbv	100	20
Density	ASTM D-792	g/cm ³	ca. 1.06	ca. 1.06
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 10,000	ca. 85

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 5,000
Gel time at 77°F (25°C)		min	15-25
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 2: 7 days at 77°F			Cure 1	Cure 2
Aspect	visual		Clear / Yellow	Clear / Yellow
Density	ASTM D-792	g/cm ³	1.06	1.06
Shore hardness D	ASTM D-2240		35-45	35-45
Tensile strength	ASTM D-638	psi	2,350	2,000
Elongation at Break	ASTM D-638	%	200	180
Tear strength	ASTM D-624	pli	310	310
Linear shrinkage	ASTM D-2566	in/in	.001	.0005

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

For best results, de-air the material prior to casting. The hardener component will slightly darken as it ages. It is recommended that dry nitrogen be used to blanket the material to prevent oxidization and from becoming moisture contaminated. Care must be taken not to damage the metal seal when removing it from the hardener can. If the seal is punctured and then replaced, it will not sufficiently retain the nitrogen blanket. This will allow the hardener to oxidize and become dark. The cured material will also oxidize over a short period of time. This will cause the material to slightly darken in shade.

Packaging

IE-3940 Quart Kit	2.4 lbs.
IE-3940 1 Gal. Kit	9.6 lbs.
IE-3940 5 Gal. Kit	48 lbs.
IE-3940 Drum Kit	540 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.
