

## High Impact / High Heat

Rigid polyurethane

### Key Properties

- Excellent physical properties after post cure
- Low viscosity
- Free of mercury, MOCA,TDI, PBDE, or phthalates
- Excellent impact resistance
- RoHS & REACH compliant

### Applications

- For hand-batch or meter mix processing
- For short run and prototype parts

### Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	47
		pbv	100	50
Density	ASTM D-792	g/cm <sup>3</sup>	ca. 1.16	ca. 1.09
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 400	ca. 900

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 600
Gel time at 77°F (25°C)		min	5-8
Demold time at 77°F (25°C)		h	1-3

### Cured / Mechanical Properties (approximate values)

Cure: 16 hours at 180°F			Cure
Aspect	visual		White
Density	ASTM D-792	g/cm <sup>3</sup>	1.13
Shore hardness D	ASTM D-2240		75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	186 (85)
Tensile strength	ASTM D-638	psi	10,145
Elongation at Break	ASTM D-638	%	26
Flexural strength	ASTM D-790	psi	15,200
Flexural modulus	ASTM D-790	psi	374,238
Notched Izod	ASTM D-256	ft.lbs./in	2.1
Linear shrinkage	ASTM D-2566	in/in	0.001-0.005

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## 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. The mixed material should be poured into a heated mold (110°F-140°F) and given an initial post cure of 110°F-140°F before demolding.

**Must agitate the polyol before use to ensure that the formula is homogeneous.**

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## Packaging

TP 4070 Quart Kit	2.94 lbs.
TP 4070 1 Gal. Kit	11.76 lbs.
TP 4070 5 Gal. Kit	58.8 lbs.
TP 4070 Drum Kit	661.5 lbs.

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## 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.

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## 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.

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