

High Performance 40A

High performance polyether based polyurethane elastomer

Key Properties

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

Applications

- For hand-batch processing methods

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	47
		pbv	100	50
Density	ASTM D-792	g/cm ³	ca. 1.06	ca. 1.03
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 625	ca. 125

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 475
Gel time at 77°F (25°C)		min	15-25
Demold time at 77°F (25°C)		h	5-7

Cured / Mechanical Properties (approximate values)

			Cure 1	Cure 2
Cure 1: 7 days at 77°F				
Cure 2: 24 hours at 77°F + 5 hours at 150°F				
Aspect	visual		Light Amber	Light Amber
Density	ASTM D-792	g/cm ³	1.04	1.04
Shore hardness A	ASTM D-2240		35-45	35-45
Tensile strength	ASTM D-638	psi	600	625
Elongation at Break	ASTM D-638	%	480	500
Tear strength	ASTM D-624	pli	95	105
Linear shrinkage	ASTM D-2566	in/in	0.002-0.005	0.002-0.005

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

Certain silicone rubbers, including platinum silicones, could inhibit the HP series. The hardener component will darken as it ages. It is recommended that dry nitrogen be used to blanket the material to prevent oxidization and from becoming moisture contaminated.

Both the hardener and resin will freeze when exposed to temperatures below 32°F. If this occurs, place containers in an oven at 120°F, agitating every 45 minutes until the materials are re-liquefied. It is important to note that temperatures exceeding the recommended heating conditions or failure to agitate will cause excessive localized heat and potentially damage the product.

Packaging

HP-2140-1 Quart Kit	2.94 lbs.
HP-2140-1 1 Gal. Kit	11.76 lbs.
HP-2140-1 5 Gal. Kit	58.8 lbs.
HP-2140-1 Drum Kit	661.5 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.
