RAKU[®] TOOL InnoTuf[®] HP-2140



High Performance 40A

High performance polyether based polyurethane elastomer

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Key Properties	Applications	
 Excellent physical properties after RT cure 	 For hand-batch processing methods 	
 Free of mercury, MOCA or MDI 		

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
		pbw	100	47
Mix ratio		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	сP	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	20-30
Demold time at 77°F (25°C)		h	5-7

Cured / Mechanical Properties (approximate values)

Cure 1: 7 days at 77°F Cure 2: 24 hours at 77°F + 5 hours at 150°F		Cure 1	Cure 2	
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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Page 2 of 2

Processing

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

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

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

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Our recommendations on the use of the material are based on many years of experience and current scientific and practical knowledge. They are, however, provided without any obligation on our part and do not relieve the buyer of the need for suitability tests. They do not constitute a legal relationship, nor are any protected third party rights whatsoever affected thereby.

