RAKU[®] TOOL InnoTooling[™] IE-3980



80A Light Color / Mass Casting

Slow reacting polyurethane

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Key Properties

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

Applications

PC - Rev.-Status: 01- 2018/09/03

- For room temperature hand mix dispensing methods
- For translucent mass castings

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	20
		pbv	100	21
Density	ASTM D-792	g/cm ³	ca. 1.11	ca. 1.07
Viscosity at 77°F (25°C)	ASTM D-2393	cР	ca. 5,500	ca. 300

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cР	ca. 2,950
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	1.07	1.07
Shore hardness A	ASTM D-2240		75-85	75-85
Tensile strength	ASTM D-638	psi	1,450	1,100
Elongation at Break	ASTM D-638	%	275	275
Tear strength	ASTM D-624	pli	175	150
Linear shrinkage	ASTM D-2566	in/in	.001	.0005001

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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. 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-3980 Quart Kit	2.4 lbs.	
IE-3980 1 Gal. Kit	9.6 lbs.	
IE-3980 5 Gal. Kit	48 lbs.	
IE-3980 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.

RAMPF Group, Inc. 49037 Wixom Tech Drive Wixom, MI 48393 T +1 248. 295.0223 F +1 248. 295.0224 E info.us@rampf-group.com 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.