

TP-4006 W / High Flex Modulus

Stiff polyurethane

Key Properties

- Excellent physical properties
- Free of mercury, MOCA or TDI

Applications

- For room temperature hand-batch systems or vacuum casting systems

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	46
		pbv	100	52
Density	ASTM D-792	g/cm ³	ca. 1.40	ca. 1.24
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 7,800	ca. 500

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 1,300
Gel time at 77°F (25°C)		min	8-12
Demold time at 150°F (66°C)		h	ca. 1

Cured / Mechanical Properties (approximate values)

Cure 1: 1 hour at 150°F + 24 hours at 77°F Cure 2: 7 days at 77°F			Cure 1	Cure 2
Aspect	visual		Tan	Tan
Density	ASTM D-792	g/cm ³	1.30	1.30
Shore hardness D	ASTM D-2240		75-85	75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	342 (172)	345 (174)
Tensile strength	ASTM D-638	psi	9,800	10,900
Elongation at Break	ASTM D-638	%	2	2
Flexural strength	ASTM D-790	psi	14,600	18,750
Flexural modulus	ASTM D-790	psi	400,000	650,000
Notched Izod	ASTM D-256	ft·lbf/in	0.4	0.3
Linear shrinkage	ASTM D-2566	in/in	0.001-0.005	0.001-0.005

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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, then pressurize to 60 psi until cured. The resin contains a filler that will settle out of solution.

Agitate the hardener and resin before use to ensure that the formula is homogeneous.

Packaging

TP-4020 Quart Kit	2.92 lbs.
TP-4020 1 Gal. Kit	11.68 lbs.
TP-4020 5 Gal. Kit	58.4 lbs.
TP-4020 Drum Kit	657 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.
