



Rigid Polyurethane
Flame Retardant 80D Clear

Key Properties

- Meets NFPA safety standards
- Free of Mercury, MOCA, or TDI
- Easily Pigmentable

Applications

- Roto-Casting
- Hand batch or vacuum assisted casting

Processing Properties

			Isocyanate	Polyol
Aspect	visual		Clear	Clear
Mix Ratio		pbw	100	43.5
		pbv	100	50
Density	ASTM D-792	g/ml	1.17	1.02
Viscosity at 25°C (77°F)	ASTM D-2393	cP	1,500	3,500

				Mixture
Mix Viscosity at 25°C (77°F)	ASTM D-2393	cP		2,200
Gel Time at 25°C (77°F)		min		20-25
Demold Time at 25°C (77°F)		hour		2-4

Cured / Mechanical Properties

Cure 1: 7 days @ 77°F (25°C)			Cure 1	Cure 2
Cure 2: 24hr @77°F (25°C) + 16hr @180°F (82°C)				
Aspect	visual		Clear	clear
Density	ASTM D-792	g/ml	1.10	1.10
Shore D Hardness	ASTM D-2240		75-80	80-85
HDT at 66psi	ASTM D-638	°F(°C)	122 (50)	151 (66)
Tensile Strength	ASTM D-638	psi	8,800	11,800
Elongation at Break	ASTM D-638	%	16	12
Flexural Strength	ASTM D-790	psi	14,700	16,500
Flexural Modulus	ASTM D-790	psi	342,500	365,000
Linear Shrinkage	ASTM D-2566	in./in.	.002-.010	.002-.010
Notched Izod	ASTM D-256	ft-lb/in	1.1	0.6

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Processing

The processing and material temperature should be between 68-77°F (20-25°C). Agitation is required before mixing to ensure homogenization. For best results, de-gas the material prior to casting, then pressurize to 60psi until cured. It is recommended that a dry nitrogen blanket be used to blanket the stored material to prevent oxidation and moisture contamination.

Packaging

1.5 Quart Kit	3.6	lbs.	1.6	kg
1.5 Gal. Kit	14.6	lbs.	6.6	kg
7.5 Gal. Kit	65.5	lbs.	29.7	kg
1.5 Drum Kit	742	lbs.	336.5	kg

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures 59-86°F (15-30°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 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.
