

High Impact FR Rigid

Rigid polyurethane

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Page 1 of 2

Key Properties

- Excellent physical properties after post cure
- Low viscosity
- Free of mercury, MOCA,TDI, PBDE, or phthalates
- Excellent impact resistance
- RoHS & REACH compliant
- Meets UL94V0
- Non-Halogenated

Applications

- For hand-batch or meter mix processing
- For short run and prototype parts

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	87
		pbv	100	93
Density	ASTM D-792	g/cm ³	ca. 1.20	ca. 1.12
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 200	ca. 750

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 450
Gel time at 77°F (25°C)		min	6-8
Demold time at 77°F (25°C)		h	1-3

Cured / Mechanical Properties (approximate values)

Cure: 16 hours at 180°F			Cure
Aspect	visual		Off White
Density	ASTM D-792	g/cm ³	1.16
Shore hardness D	ASTM D-2240		75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	167 (75)
Tensile strength	ASTM D-638	psi	10,100
Elongation at Break	ASTM D-638	%	23
Flexural strength	ASTM D-790	psi	15,500
Flexural modulus	ASTM D-790	psi	386,190
Notched Izod	ASTM D-256	ft.lbs./in	1.6
Linear shrinkage	ASTM D-2566	in/in	0.001-0.005

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, then pressurize to 60 psi. The mixed material should be poured into a heated mold (110°F-140°F) and given an initial post cure of 110°F-140°F before demolding.

Must agitate the polyol before use to ensure that the formula is homogeneous.

Packaging

FX-8300 Quart Kit	3.74 lbs.
FX-8300 1 Gal. Kit	14.96 lbs.
FX-8300 5 Gal. Kit	74.8 lbs.
FX-8300 Drum Kit	841.5 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.
