

High Impact / Flame Retardant

Rigid polyurethane

Key Properties

- Excellent physical properties after mild post cure
- Low viscosity
- Free of mercury, MOCA,TDI, PBDE, or phthalates
- Meets UL 94 V-0 / Non-Halogenated FR
- Easily pigmented
- Excellent impact resistance

Applications

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

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	99
		pbv	100	100
Density	ASTM D-792	g/cm ³	ca. 1.20	ca. 1.17
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 1,400	ca. 400

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 550
Gel time at 77°F (25°C)		min	8-12
Demold time at 77°F (25°C)		min	60-90

Cured / Mechanical Properties (approximate values)

Cure: 2 hours at 100°F + 7 days at 77°F			Cure
Aspect	visual		Amber
Density	ASTM D-792	g/cm ³	1.18
Shore hardness D	ASTM D-2240		75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	176 (80)
Tensile strength	ASTM D-638	psi	9,500
Flexural strength	ASTM D-790	psi	10,500
Flexural modulus	ASTM D-790	psi	270,000
Notched Izod	ASTM D-256	ft.lbs./in	1.1
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 hardener will separate, it must be agitated before use.** 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.

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

Packaging

FX-8113 Quart Kit	3.98 lbs.
FX-8113 1 Gal. Kit	15.92 lbs.
FX-8113 5 Gal. Kit	79.6 lbs.
FX-8113 Drum Kit	895.5 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.