

# Fire Extinguish 80D Clear

Rigid polyurethane system

## Key Properties

- Excellent physical properties after 150°F post cure
- Free of mercury, MOCA or TDI
- UL94 V-0 approved

## Applications

- Formulated for hand-mix methods

## Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	56
		pbv	100	58
Density	ASTM D-792	g/cm <sup>3</sup>	ca. 1.16	ca. 1.12
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 590	ca. 3,200

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 930
Gel time at 77°F (25°C)		min	15-20
Demold time at 77°F (25°C)		h	2-4

## Cured / Mechanical Properties (approximate values)

			Cure 1	Cure 2
<b>Cure 1: 24 hours at 77°F + 16 hours at 150°F</b> <b>Cure 2: 7 days at 77°F + 16 hours at 150°F</b>				
Aspect	visual		Clear	Clear
Density	ASTM D-792	g/cm <sup>3</sup>	1.14	1.14
Shore hardness D	ASTM D-2240		75-85	75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	149 (65)	158 (70)
Tensile strength	ASTM D-638	psi	8,000	9,100
Elongation at Break	ASTM D-638	%	2	2
Flexural strength	ASTM D-790	psi	9,200	10,000
Flexural modulus	ASTM D-790	psi	260,000	300,000
Notched Izod	ASTM D-256	ft.-lbf/in	1.0	1.0
Linear shrinkage	ASTM D-2566	in/in	.002-.008	.002-.008

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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, then pressurize to 60psi until cured. A post cure of 150F for 16 hours will significantly increase the heat resistance of this system. FX-8586 can be easily buffed when cured. The lower hardener viscosity at a slightly elevated temperature allows improved processing where thin wall sections are difficult to fill. RAMPF Group Inc.'s water clear rigid products may be inhibited by certain platinum silicone rubbers. It is recommended that a test sample be prepared to verify compatibility. Although warming the hardener component will reduce the viscosity effectively, it is not recommended that the material be stored in the oven at 100°F or above. This will cause the material to yellow.

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

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### Packaging

FX-8586 Quart Kit	3.12 lbs.
FX-8586 1 Gal. Kit	12.48 lbs.
FX-8586 5 Gal. Kit	62.4 lbs.
FX-8586 Drum Kit	702 lbs.

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### 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.

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### 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.

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