

Innothane®


Product Name

InnoFR™ FX-8585
High Heat/Flame Retardant

Description

FX-8585 is a rigid polyurethane formulated for room temperature hand batch systems or vacuum assisted casting methods. Excellent physical properties can be obtained without the utilization of mercury, MOCA, or TDI. FX-8585 passes UL 94-VO. It also meets the standards to pass FAR 25.853.

Physical Properties

Mix Ratio	Resin:Hardener (parts by weight)		100:56	
Mix Ratio	Resin:Hardener (parts by volume)		100:67	
Viscosity (cps@77°F)	Resin **	3750	Gel Time	7 ± 1.5 Minutes
	Hardener	450	Demold Time*	2.5 ± 1 Hour
	Mixed ***	1400	Color	Tan
Specific Gravity (g/cc)	Resin	1.26	* Demold time is always mass dependant ** Resin Temp @ 100°F = 1,450 CPS *** Mixed Viscosity @ 100°F = 900 CPS	
	Hardener	1.23		

Cured Properties

Cure 1 ► 24 hours at 77°F + 16 hours at 180°F
 Cure 2 ► 7 days at 77°F



	Method	Cure 1	Cure 2
Hardness (shore D)	ASTM D-2240	85 ± 5	85 ± 5
Tensile Strength (psi)	ASTM D-638	5,700	6,600
Elongation at Break	ASTM D-638	6%	3%
Ultimate Flex Strength (psi)	ASTM D-790	11,000	9,500
Flexural Modulus (psi)	ASTM D-790	265,000	235,000
Notched Izod (ft.lbs./in.)	ASTM D-256	0.8	0.7
Linear Shrink (in./in.)	ASTM D-2566	.002-.010	.002-.010
Heat Deflection Temp. (66psi)	ASTM D-648	130°C / 266°F	97°C / 207°F
Specific Gravity (g/cc)		1.23	1.23

Processing Notes

Demold times can be reduced to 1 hour or less with pre-heated molds. For best results, de-air the material prior to casting, then pressurize to 60 psi.

Properties listed in cure 1 show a lengthy post cure at 180°F. A great HDT of 119°C can still be achieved with a 24 hour room temperature plus 1 hour at 150°F cure.

The hardener component will darken as it ages. It is recommended that dry nitrogen be used to blanket the material to prevent oxidization and from becoming moisture contaminated. The cured material will also oxidize over a short period of time. This will cause the material to darken in shade.

The hardener and resin contain filler that will settle from solution. Ensure you shake before use.

<u>Kit Weights</u>	Quart Kit	1 Gal. Kit	5 Gal. Kit	Drum Kit
	3.12 lbs.	12.48 lbs.	62.4 lbs.	702 lbs.

Safety and Handling

DO NOT USE UNTIL MSDSs HAVE BEEN READ AND UNDERSTOOD. Store containers in a dry location. Partially used containers should be blanketed with dry nitrogen to prevent moisture contamination. Moisture will react with the resin component, creating carbon dioxide gas and a possible pressure increase in the container.

SPECIFICATION WRITERS: The above values are meant to represent typical properties only. Users are encouraged to qualify products in their own laboratories prior to specification publication.

PURCHASER has the responsibility for determining any applicability of and compliance with federal, state, and local laws concerning labeling, use, and waste disposal, particularly in making consumer items. Innovative Polymers, Inc. makes no warranty, expressed or implied, for merchantability or fitness of use. The sole liability of Innovative Polymers, Inc. for any claim arising out of the manufacture, use, or sale of its products shall be the buyers purchase price.