



Freeman 2450 Polyurethane Elastomer

Description

Freeman 2450 is a quick curing urethane elastomer which produces thermoplastic like parts with high dimensional stability, good heat resistance and high impact strength. Ideal for rapid prototyping or short run production parts.

Physical Properties

Color	Black
Mix Ratio (by weight)	80:100
Mix Ratio (by volume)	67:100
Viscosity, Mixed (cps)	800
Gel Time (seconds @ 72°F)	55
Demold Time (minutes)	15-30
Specific Gravity (g/cc)	1.15
Volumetric Yield (in ³ /lb.)	24

POST CURE OPTIONS:

Post cure is recommended to obtain maximum physical and thermal properties of the system. The recommended post cure temperature ramp rate between stages is up 5°F per minute for heating, and down 1-2°F per minute for cooling. Heating and cooling ramp rates can vary based on size and thickness of the part. For larger or thicker parts use a more conservative ramp.

CURE INCREMENTS	24 Hours at 77°F (25°C)	7 Days at 77°F (25°C)	14 Hours at 176°F (80°C)
Room Temperature Cure	Supported	Unsupported	
Post Cure	Supported		Unsupported

READ SAFETY DATA SHEETS AND PRODUCT LABELS BEFORE USING PRODUCT



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Physical Cured Properties

Cure Schedule	Room Temp.	Post Cure	Test Method
Hardness (Shore D)	77	80	ASTM D2240
Izod impact, Notched, ft.lb./in.	0.9	0.7	ASTM D256
Tensile Strength, psi	4,900	5,100	ASTM D638
Tensile Elongation, %	12	6	ASTM D638
Tensile Modulus, psi	170,000	166,000	ASTM D638
Compressive Strength, psi	23,100	17,900	ASTM D695
Compressive Modulus, psi	187,000	171,000	ASTM D695
Flexural Strength, psi	7,000	6,300	ASTM D790
Flexural Modulus, psi	184,000	167,000	ASTM D790
CTE, -22 to 86°F, in/in/°F	6.7×10^{-5}	6.3×10^{-5}	ASTM D3386
HDT, @ 66 psi, °F 250	250	250	ASTM D648

Ordering Information

Item Number	Description	Size	Net Wt. Lbs.
057765	Freeman 2450 Resin	5-Gallon	32
057766	Freeman 2450 Hardener	5-Gallon	40

The user shall determine the suitability of this product for their application and assumes all risks and liabilities associated with the use of this product. The exclusive remedy for all proven claims is replacement of our materials only and in no event shall Freeman Mfg. & Supply Co. be liable for special, incidental, or consequential claims.

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