



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Homopolymer Polypropylene Semi-Crystalline Commodity Plastic

Homopolymer Polypropylene is a low-cost commercial grade of thermoplastics for non-critical applications. It has a high strength-to-weight ratio and zero moisture absorption. Homopolymer Polypropylene has excellent chemical and corrosion resistance and excels at thermoforming performance. It is FDA, NSF, and SSI Standard 20 compliant. It is common in orthotic and prosthetic devices, mechanical pump components, storage tanks, and valve bodies. *PolyPro FR is The Gund Company's commercial grade of flame-retardant Homopolymer Polypropylene.*

The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.

PROPERTIES	ISO/IEC*			ASTM*		
	Test Method	Units	Typical Values	Test Method	Units	Typical Values
PHYSICAL	Density	ISO 1183-1	g/cm ³	0.91		
	Specific Gravity					0.91
	Water Absorption: 24 hrs. in water @ 73°F	ISO 62	%	<0.1	ASTM D 792	
	Water Absorption: Saturation in water @ 73°F		%	<0.1	ASTM D 570	%
	Dynamic Coefficient of Friction (-)	ISO 7148-2			ASTM D 570	%
				QTM 55007		0.25
THERMAL	Melting Temperature (DSC, 10°C(50°F)/min)	ISO 11357-1/-3	°C	165	ASTM D 3418	°F
	Thermal Conductivity at 23°C (73 °F)		W/m-K	0.22		BTU-in/ft ² .hr.°F
	CLTE (-40 to 150°C) (-40 to 300°F)				ASTM E 831 (TMA)	µin/in-°F
	CLTE (23 to 100°C) (73°F to 210°F)		µm/m-°C	150.0		
	Heat Deflection Temperature (264 PSI)	ISO 75-1/-2	°C	57	ASTM D 648	°F
	Continuous Service Temperature in Air 20 hrs.		°C	90		°F
Flammability: UL94 (3 mm (1/8 in.))			HB			180
						HB
MECHANICAL	Ultimate Tensile Strength	ISO 527-1/-2	MPa	34.0	ASTM D 638	PSI
	Tensile Strain at Yield	ISO 527-1/-2	%	6.0	ASTM D 638	%
	Tensile Strain at Break	ISO 527-1/-2	%	25.0	ASTM D 638	%
	Tensile Modulus of Elasticity	ISO 527-1/-2	GPa	1800	ASTM D 638	KSI
	Compressive Stress: 1 / 2 / 5 % nominal strain	ISO 604	MPa	15 / 26 / 43		
	Compressive Strength				ASTM D 695	PSI
	Charpy Impact Strength - Unnotched	ISO 179-1/1eU	kJ/m ²	116.00		
	Charpy Impact Strength - Double 14° Notched	ISO 21304-2	kJ/m ²	12.0		
	IZOD Impact Notched				ASTM D 256	ft-lb/in
	Flexural Strength	ISO 178	MPa		ASTM D 790	PSI
Flexural Modulus	ISO 178	GPa		ASTM D 790	KSI	
Hardness Shore D	ISO 868		78	ASTM D 2240		
						5,000
						1.20
						4,800
						195
						78
ELECTRICAL	Dielectric Strength	IEC 60243-1	kV/mm		ASTM D 149	V/mil
	Surface Resistivity	ANSI/ESD STM 11.11	Ohms/sq		ANSI/ESD STM 11.11	Ohms/sq
						570
						10 ¹⁴

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty - expressed or implied - including, without limitation, warranties of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.