



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Lexan™ Series

Amorphous Polycarbonate Engineering Plastic

Lexan polycarbonate is a transparent amorphous thermoplastic. It exhibits outstanding mechanical, optical, and thermal properties: high impact strength, long-term high transparency, stability at high temperatures, flame/UV resistance, and can be thermoformed to complex shapes. Lexan polycarbonate is ideal for various applications such as aerospace, transportation, and construction.

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.

		ISO/IEC			TYPICAL VALUES				ASTM		TYPICAL VALUES		
PROPERTIES		Test Method	Units	Generic	Flame Resistant	Test Method	Units	Generic	Flame Resistant	Test Method	Units	Generic	Flame Resistant
PHYSICAL	Specific Gravity					ASTM D792		1.20	-				
	Density	ISO 1183	g/cm ³	-	1.24	ASTM D570	%	0.15	-				
	Water Absorption: 24 hrs.		%	-	0.35	ASTM D570	%	0.15	-				
	Water Absorption Equilibrium at 73 °F					ASTM D570	%	0.35	-				
THERMAL	CLTE		1/°C	-	7-10 ⁻⁵	ASTM D696	µin/in-°F	37.50	-				
	Thermal Conductivity		W/m°C	-	0.20	ASTM C177	BTU-in/hr-ft ² -°F	1.35	-				
	Specific Heat at 40 °C					ASTM C351	BTU/lb-°F	0.30	-				
	Heat Deflection Temperature at 264 PSI					ASTM D648	°F	270	-				
	Heat Deflection Temperature at 66 PSI	ISO 75/Be	°C	-	138	ASTM D648	°F	280	-				
	Brittle Temperature (on resin)			-	-	ASTM D746	°F	-211	-				
	Vicat Softening Temperature: Rate B / 120	ISO 306	°C	-	145								
	Mold Shrinkage	ISO 527	%	-	0.60 - 0.80								
	Horizontal Burn (Flame Spread): AEB					ASTM D635	Inches	<1	-				
	Ignition Temperature: Self						°F	>1,000	-				
MECHANICAL	UL Flammability	UL 94		HB	V-2 / V-0 / V-0	UL 94		HB	V-2 / V-0 / V-0				
	Tensile Strength at Yield	ISO 527	MPa	-	60	ASTM D638	PSI	9,500	-				
	Tensile Strength at Break	ISO 527	MPa	-	70			-	-				
	Tensile Modulus	ISO 527	MPa	-	2,350	ASTM D638	KSI	345	-				
	Tensile Elongation at Break	ISO 527	%	-	120			-	-				
	Flexural Strength	ISO 178	MPa	-	90	ASTM D790	PSI	13,500	-				
	Flexural Modulus	ISO 178	MPa	-	2,300	ASTM D790	KSI	345	-				
	Compressive Strength					ASTM D695	PSI	12,500	-				
	Compressive Modulus					ASTM D695	KSI	345	-				
	Poisson's Ratio					ASTM E132		0.37	-				
	IZOD Impact Strength: Notched	ISO 180/1A @ 23°C	kJ/m ²	-	65	ASTM D256A	ft-lbs/in	12 - 16	-				
	IZOD Impact Strength: Unnotched					ASTM D256A	ft-lbs/in	60	-				
	Gardner Impact at 23°C / -30°C					ASTM D3029	J	-	> 40 / > 40				
	Shear Strength at Yield					ASTM D732	PSI	6,000	-				
ELECTRICAL	Shear Modulus					ASTM D732	KSI	114	-				
	Taber Abrasion: CS17, 1000g, 1,000 Cycles					ASTM D1242	mg	-	9				
	Rockwell Hardness: M Scale					ASTM D785		70	74				
	Rockwell Hardness: R Scale					ASTM D785		118	-				
	Dielectric Strength	IEC 60243	kV/mm	-	17								
	Dielectric Constant at 60 Hz					ASTM D150		3.17	3.17				
	Dielectric Constant at 1 MHz					ASTM D150		-	2.96				
	Dissipation Factor at 50 Hz					ASTM D150		-	0.001				
ELECTRICAL	Dissipation Factor at 60 Hz					ASTM 150		0.0009	-				
	Dissipation Factor at 1 MHz					ASTM 150		-	0.01				
	Volume Resistivity					ASTM D257	Ohm-cm	8.2-10 ¹⁶	>10 ¹⁵				

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.