



# THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

## Polycarbonate

<b>Item:</b>	<b>Polycarbonate</b>
<b>Description:</b>	Polycarbonate is a thermoplastic known by such trade names as Palsun®, Lexan®, Spartech®, Tuak®, Merlin®, Makrolon®, and Hyzod®. It is utilized for its strong mechanical properties and good electrical insulation characteristics. It is available as transparent or in a variety of colors.
<b>Application:</b>	<p>Polycarbonate materials are commonly used as sight windows or finger guards in metal enclosed switchgear.</p> <p>Polycarbonate is available in different flammability grades; UL 94 HB through UL 5VA and is selected by the customer to meet the needs of their electrical insulation requirements.</p> <p>Polycarbonate can be easily machined and formed into a variety of three dimensional shapes. Polycarbonate is also commonly used for glazing and machine guards where the need for high impact resistance is required.</p>
<b>Availability:</b>	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.

Key Characteristics		Test Method	Units	Typical Values
Density		ASTM D792	g/cm <sup>3</sup>	1.2
Heat Deflection Temperature		ASTM D648	°C	130
Service Temperature	Short Term	--	°C	-50 to 120
	Long Term			-50 to 100
Coefficient of Linear Thermal Expansion		ASTM D696	cm/cm °C	6.5 x 10 <sup>-5</sup>
Thermal Conductivity		ASTM C177	W/mK	0.21
Tensile Strength at Yield		ASTM D638	MPa	60
Tensile Strength at Break		ASTM D638	MPa	65
Elongation at Yield		ASTM D638	%	6
Elongation at Break		ASTM D638	%	> 90
Tensile Modulus of Elasticity		ASTM D638	MPa	2,000
Flexural Strength		ASTM D790	MPa	100
Flexural Modulus		ASTM D790	MPa	2,600
Impact Falling Weight		ISO 6603/1	J	158
Rockwell Hardness		ASTM D-785	R Scale	125
Light Transmission		ASTM D1003	%	89
Haze		ASTM D1003	%	< 0.5
Yellowness Index		ASTM D1925	--	< 1
Dielectric Strength		ASTM D149	V/mil	> 700
Dielectric Constant		ASTM D150	--	3

AS9100 Certified QMS | ISO9001 Certified QMS | RoHS Compliant | ITAR Compliant

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