



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Palsun® Series

Amorphous Polycarbonate Engineering Plastic

Palsun® is a strong, lightweight, general-purpose polycarbonate. It is 200x stronger than glass and offers extraordinary impact resistance, high clarity, good acoustical insulation, and a wide service temperature range. Palsun® is formable and machinable. Applications include windows, fabricated parts, greenhouse exteriors, and kiosks.

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/EIC		TYPICAL VALUES	ASTM		TYPICAL VALUES
PROPERTIES		Test Method	Units	Palsun®	Test Method	Units	Palsun®
PHYSICAL	Specific Gravity				ASTM D1505	g/cm ³	1.20
	Water Absorption: 24 hrs.				ASTM D570	%	0.15
THERMAL	Long Term Service Temperature						-175 to +212
	Short Term Service Temperature						-175 to +250
	Heat Deflection Temperature (264 PSI)				ASTM D648	°F	275
	Vicat Softening Temperature: Load 2.2 lb.				ASTM D1525	°F	300
	Coefficient of Linear Thermal Expansion				ASTM D696	mil/in-°F	0.036
	Thermal Conductivity				ASTM C177	Btu-in/hr-ft ² -°F	1.46
	Specific Heat Capacity				ASTM C351	Btu/lb-°F	0.31
MECHANICAL	Tensile Strength at Yield				ASTM D638	PSI	9,100
	Tensile Strength at Break				ASTM D638	PSI	9,500
	Elongation at Yield				ASTM D638	%	6
	Elongation at Break				ASTM D638	%	>80
	Tensile Modulus of Elasticity				ASTM D638	KSI	290
	Flexural Modulus				ASTM D790	KSI	373
	Flexural Strength at Yield				ASTM D790	PSI	13,600
	IZOD Impact Strength: Notched				ASTM D256	ft-lbs/in	15
	Charpy Impact Strength: Notched				ASTM D256	ft-lbs/in	15
	Impact Falling Weight	ISO-6603/1b	J	158			
	Rockwell Hardness: M Scale				ASTM D785		70
	Rockwell Hardness: R Scale				ASTM D785		125
ELECTRICAL	Dielectric Constant: 50 Hz				ASTM D150		3
	Dielectric Constant: 1 MHz				ASTM D150		2.9
	Dissipation Factor: 1 KHz				ASTM D150		0.001
	Dissipation Factor: 1 MHz				ASTM D150		0.01
	Dielectric Strength: Short Time (500 V/s)				ASTM D149	kV/mm (V/mil)	>30 (>770)
	Surface Resistance				ASTM D257	Ohm	10 ¹⁶
	Volume Resistance				ASTM D257	Ohm-cm	10 ¹⁷
OPTICAL	Haze				ASTM D1003	%	<0.50
	Light Transmission				ASTM D1003	%	89
	Refractive Index				ASTM D542		1.59
	Yellowness Index				ASTM D1925		<1

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.