



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.

		ASTM	TYPICAL VALUES		
PROPERTIES	Test Method	Units	Palsun®		
PHYSICAL	Specific Gravity	ASTM D1505	g/cm ³	1.2	
	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		270	
	Vicat Softening Temperature: Load 2.2 lb.	ASTM D1525		300	
	Coefficient of Linear Thermal Expansion	ASTM D696		3.6	
	Thermal Conductivity	ASTM C177		1.46	
	Specific Heat Capacity	ASTM C351		(0.31)	
MECHANICAL	Tensile Strength at Yield	ASTM D638	MPa	62	
	Tensile Strength at Break	ASTM D638	MPa	65	
	Elongation at Yield	ASTM D638	%	6	
	Elongation at Break	ASTM D638	%	110	
	Tensile Modulus of Elasticity	ASTM D638	MPa	2,378	
	Flexural Modulus	ASTM D790	MPa	2,378	
	Flexural Strength at Yield	ASTM D790	MPa	93	
	IZOD Impact Strength: Notched	ASTM D256	J/m	800	
	Charpy Impact Strength: Notched	ASTM D256	J/m	800	
	Impact Falling Weight		J	-	
	Rockwell Hardness	ASTM D785	R scale / M scale	125 / 70	
	Compressive Strength	ASTM D695	MPa	86	
	Compressive Modulus	ASTM D695	MPa	2,378	
ELECTRICAL	Dielectric Constant at 30 Hz	ASTM D150		3	
	Dielectric Constant at 1 MHz	ASTM D150		2.9	
	Dissipation Factor at 30 Hz	ASTM D150		0.9	
	Dissipation Factor at 1 MHz	ASTM D150		11	
	Dielectric Strength: Short Time (500 V/s)	ASTM D149	kV/mm (V/mil)	>30 (>770)	
	Surface Resistance	ASTM D257	Ohm	5.1·10 ¹⁵	
	Volume Resistance	ASTM D257	Ohm-cm	1.3·10 ¹⁷	
OPTICAL	Haze	ASTM D1003	%	<0.5	
	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.