THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

Acrylic

Amorphous Commodity Plastic

Acrylic (known as Plexiglas) is a transparent thermoplastic with outstanding strength, stiffness, and optical clarity. Acrylic sheets are easy to fabricate and bond well with adhesives. Because it's a thermoplastic, it can soften under extremely high temperatures. That also makes it easy to fabricate into virtually any shape. It is incredibly durable, and some grades are UV-resistant. It is a suitable solution over a broad temperature range and has superior weathering properties compared to other plastics.

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*			ASTM*		
	PROPERTIES	Test Method	Units	Typical Values	Test Method	Units	Typical Values
PHYSICAL	Specific Gravity				ASTM D792		1.190
	Water Absorption 24 hrs. @ 73 °F		%	0.2	ASTM D570	%	0.2
THERMAL	Forming Temperature		°C	149		°F	Approx. 300
	Heat Deflection Temperature (264 PSI)		°C	91	ASTM D648	°F	195
	Vicat Softening Point		°C	105	ASTM D1525	°F	220
	Max Continuous Service Temperature in Air		°C	71		°F	160
	Coefficient of Linear Thermal Expansion		µm/m-°C	72.0	ASTM D696	µin/in-°F	40.0
	Thermal Conductivity		W/m-K	0.19	Cenco-Fitch	BTU-in/ft².hr.°F	1.30
	Flammability, Burning Rate		mm/min	25	ASTM D635	in/min	1
	Self-Ignition Temperature		°C	455	ASTM D1929	°F	850
	Specific Heat @ 77°F		J/Kg•K	1,470		BTU/lb-°F	0.35
	Smoke Density Rating		%	5	ASTM D2843	%	5
MECHANICAL	Ultimate Tensile Strength		MPa		ASTM D638	PSI	10,000
	Elongation at Break		%		ASTM D638	%	5
	Tensile Modulus		GPa		ASTM D638	KSI	400
	Flexural Strength		MPa		ASTM D790	PSI	17,000
	Flexural Modulus		GPa		ASTM D790	KSI	480
	Compressive Strength (Yield)		MPa		ASTM D695	PSI	17,000
	Impact Strength		kJ/m²		ASTM D256	ft-lb/in	0.40
	IZOD Milled Notched		kJ/m²		ASTM D256	ft-lb/in	0.40
	Rockwell Hardness: M-93				ASTM D785		93
	Barcol Hardness				ASTM D2583		48
ELECTRICAL	Dielectric Strength Short Time (0.125")		kV/mm		ASTM D149	V/mil	430
	Dielectric Constant: 60 Hz				ASTM D150		3.60
	Dielectric Constant: 1,000 Hz				ASTM D150		3.30
	Dielectric Constant: 1 MHz				ASTM D150		2.80
	Dissipation Factor: 60 Hz				ASTM D150		0.0600
	Dissipation Factor: 1,000 Hz				ASTM D150		0.0400
	Dissipation Factor: 1 MHz				ASTM D150		0.0200
	Volume Resistivity		Ohm-cm		ASTM D257	Ohm-cm	10^{16}
	Surface Resistivity		Ohms		ASTM D257	Ohms	10^{15}
OPTICAL	Refractive Index				ASTM D542		1.49
	Transmission, Visible		%		ASTM D1003	%	92