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**Technical Datasheet:** Acrylic Material

<b>Mechanical Properties <sup>(a)</sup></b>	<b>ASTM Method</b>	<b>Typical Value (.236" Thickness)</b>
Specific Gravity	D792	1.19
Tensile Strength	D638	10,000 psi (69 M Pa)
Elongation, Rupture		4.2%
Modulus of Elasticity		4000,000 psi (2800 M Pa)
Flexural Strength (Rupture)	D790	16,500 psi (114 M Pa)
Modulus of Elasticity		475,000 psi (3300 M Pa)
Compression Strength (Yield)	D695	18,000 psi (124 M Pa)
Modulus of Elasticity		430,000 psi (2960 M Pa)
Shear Strength	D732	9,000 psi (62 M Pa)
Impact Strength		0.4 ft. lbs/in. of notch
Izod Milled Notch	D256	(21.6 J/m of notch)
Rockwell Hardness	D785	M-94
Barcol Hardness	D2583	49
Residual Shrinkage <sup>(c)</sup> (Internal Strain)	D702	2%

<b>Optical (Clear Material) Properties</b>	<b>ASTM Method</b>	<b>Typical Value (.236" Thickness)</b>
Refractive Index	D542	1.49
Light Transmission	D1003	92%
UV Transmission		0 at 320 Nanometers
Haze		Less than 1%

<b>Thermal Properties</b>	<b>ASTM Method</b>	<b>Typical Value (.236" Thickness)</b>
Forming Temperature		340-380°F (170-190°C)
Deflection Temperature under load 264 psi	D648	210°F (99°C)
Vicat Softening Point	D1525	239°F (115°C)
Maximum Recommended Continuous Use Service Temperature		180°F <sup>(d)</sup> (82°C)
Coefficient of Linear Thermal Expansion	D696	.00034 in/in-°F (.000061 m/m-°C)
Coefficient of Thermal Conductivity	Cenco-Fitch	1.3 BTU/(Hr) (Sq.Ft.) (°F/in.) (0.19 w/m-K)
Flammability (Burning Rate 3mm Thickness)	D635	1.0 in/min. (25mm/min.)
Self-Ignition Temperature	D1929	910°F (490°C)
Specific Heat @ 77°F		0.25 BTU/(lb.) (°F) (1470J/Kg-k)
Smoke Density Rating	D2843	10%

Electrical Properties	ASTM Method	Typical Value (.236" Thickness)
Dielectric Strength Short Time (0.125" Thickness)	D149	430 volts/mil (17 KV/mm)
Dielectric Constant - 60 Hertz	D150	3.5
Dielectric Constant - 1,000 Hertz	D150	3.2
Dielectric Constant - 1,000,000 Hertz	D150	2.7
Dissipation Factor - 60 Hertz	D150	0.06
Dissipation Factor - 1,000 Hertz	D150	0.04
Dissipation Factor - 1,000,000 Hertz	D150	0.02
Volume Resistivity	D257	$1.6 \times 10^{16}$ Ohm-cm
Surface Resistivity	D257	$1.9 \times 10^{15}$ Ohms

Water Absorption	ASTM Method	Typical Value (.236" Thickness)
24 hrs. @ 73°F	D570	0.2%
Weight Gain During Immersion	D570	0.2%
Soluble Matter Lost	D570	0.0%
Water Absorbed	D570	0.2%
Dimensional Change During Immersion	D570	0.2%
Weight Gain During Immersion - 7 Days	D570	0.5%
Weight Gain During Immersion - 14 Days	D570	0.6%
Weight Gain During Immersion - 21 Days	D570	0.8%
Weight Gain During Immersion - 35 Days	D570	1.0%
Weight Gain During Immersion - 48 Days	D570	1.1%

Other Properties		Typical Value (.236" Thickness)
Odor		None
Taste		None