



Physical Characteristics of LUMIGRAF LAMINATED acrylic sheets

APPLIES TO: **Lumi-Onyx / Texture-All / Lumi-Pearl / Reflexions / Galvanised / Rainbow / Crystallised / C-THRU / LightHouse / LUMI-9**

Property ^(a)	ASTM Method	Typical Value (0.250" Thickness) ^(b)
Mechanical		
Specific Gravity	D 792	1.19
Tensile Strength	D 638	10,000 psi (69 MPa)
Elongation, Rupture		4.5%
Modulus of Elasticity		400,000 psi (2800 MPa)
Flexural Strength	D 790	17,000 psi (117 MPa)
Modulus of Elasticity		480,000 psi (3300 MPa)
Compressive Strength (Yield)	D 695	17,000 psi (117 MPa)
Impact Strength	D 256	0.4 ft. lbs/in. of notch
Izod Milled Notch		(21.6 J/m of notch)
Rockwell Hardness	D 785	M-93
Barcol Hardness	D 2583	48
Optical		
Refractive Index	D 542	1.49
Light Transmission, Total	D 1003	92%
Thermal		
Forming Temperature	-	Approx. 300°F (149°C)
Deflection Temperature under load, 264 psi	D 648	195°F (91°C)
Vicat Softening Point	D 1525	220°F (105°C)
Maximum recommended Continuous Service Temperature	-	160°F ^(c) (71°C)
Coefficient of Linear Thermal Expansion	D 696	0.000040 in/in - °F (0.000072 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 (0.125"thickness)	D 635	1.0 in/min. (25 mm/min.)
Self Ignition Temperature	D 1929	850°F(455°C)
Specific Heat @ 77°F		0.35 BTU/(lb.) (°F)(1470J/Kg·K)
Smoke Density Rating	D 2843	4.8%
Electrical		
Dielectric Strength Short Time (0.125")	D 149	430 volts/mil (17 KV/mm)
Dielectric Constant	D 150	
60 Hertz		3.6
1,000 Hertz		3.3
1,000,000 Hertz		2.8
Dissipation Factor	D 150	
60 Hertz		0.06
1,000 Hertz		0.04
1,000,000 Hertz		0.02
Volume Resistivity	D 257	10 ¹⁶ ohm-cm
Surface Resistivity	D 257	10 ¹⁶ ohms
Water Absorption 24 hrs @ 73°F	D 570	0.2%
Odor	-	-
Taste	-	-

