lucitelux®
JUST IMAGINE

lucitelux® Museum Grade Technical Bulletin

		Test Method	Typical Value [(a)]
General	Specific Gravity	ASTM D792	1.19
Mechanical			
	Tensile Strength ❖ % Elongation @ break ❖ Modulus of elasticity ❖ % Elongation @ yield	ASTM D638	11,000 psi 7.6% 465,000 psi 6.0%
	Flexural Strength Flexural modulus (tangent)	ASTM D790	14,700 psi 461,000 psi
	Impact Strength ❖ Compressive strength (x-y plane) ❖ Compressive stress @ yield ❖ Compressive modulus ❖ Charpy (un-notched) ❖ Charpy (notched) ❖ Shear Strength (punch tool) ❖ Izod (procedure A)	 ASTM D695 ASTM D256 ASTM D6110 ASTM D732 ASTM D256	 83,300 psi 18,000 psi 279,000 psi 5.0 ft lb/in/in 20.8 J/m 11,200 psi 0.32 ft-lb. / in.
	Rockwell Hardness	ASTM D785	M-92
	Residual Shrinkage (b) (Internal Strength)	ASTM D702	2.5 % maximum
Optical	Refractive Index	ASTM D542	1.49
	% Light Transmission (visible)	ASTM D1003	92
	% UV Transmission (λ280- 400 nm) (c)		λ / %UVT 280 nm / < 0.012 300 nm / < 0.012 320 nm / < 0.017 340 nm / < 0.014 360 nm / < 0.017 380 nm / < 0.035 400 nm / < 2.00
	Haze	ASTM D1003	Less than 1%
	Surface Abrasion Resistance (d) (Taber , CS-10)	 ASTM D1044	500 cycles : < 1% 1000 cycles: <2%
Thermal	Maximum Continuous Service Temperature		175°F (e)
	Coefficient of Thermal Conductivity		1.45 Btu in./ft^2 hr. °F
	Deflection Temperature under load, 264 psi	ASTM D648	200°F
	Hot Forming Temperature		280°-340°F (138°-170°C)
	Coefficient of Linear Thermal Expansion	ASTM D696	3.5 E-05 in/in/°F
	Specific Heat		0.35 Btu/ lb (°F)

• *Continued on next page.* •

Electrical	D-C Resistance ❖ Volume Resistivity ❖ Surface Resistivity	ASTM D257	>3.912E+15 Ω/cm > 5.237E+15 Ω/sq
	Dielectric Strength (2000v/sec)	ASTM D149	354 V/mil
	Dielectric Constant, k' ❖ 60 Hz ❖ 1 KHz ❖ 1MHz Dissipation Factor, D ❖ 60Hz ❖ 1KHz ❖ 1MHz Arc Resistance	 ASTM D150 ASTM D495	 3.3 3.0 2.7 0.06 0.04 0.02 No tracking
Combustibility	Smoke Density Rating Tunnel Test (smoke developed) Rate of Flame Spread Fuel contribution factor Ignition temperature Radiant Panel, Flame spread index Horizontal Burn	ASTM D2843 ASTM E84 ASTM E84 - ASTM D1929 ASTM E162 ASTM D635	13.5% 385 140 11,300 Btu/lb 750ºF (399°C) 219 1.18 in. /min.
	UL Horizontal Burn Rating	UL94	94 HB
Miscellaneous			
Water Absorption	24 hrs @ 23°C 2 hrs boiling water immersion	ASTM D570	0.2% 0.6%
	Soluble Matter Lost (post immersion)	ASTM D570	nil
	Odour	-	nil

Notes:

a) Values provided should not be used for specification purposes. Some values will vary with sheet thickness.
b) Measured at room temperature before and after heating above 300° F.
c) % UVT based on average wavelength values for .118" and .177" Museum Grade sheet
d) Numerical values indicate % light transmission loss after indicated cycles.
e) It is recommended that temperatures not exceed 180°F for continuous Service.