

## lucitelux<sup>®</sup> Continuous Cast Technical Bulletin

		Test Method	Typical Value <sup>(a)</sup>
<b>General</b>	Specific Gravity	ASTM D792	1.19
<b>Mechanical</b>			
	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-100
	Residual Shrinkage (b) (Internal Strength)	ASTM D702	2.5 % maximum
<b>Optical</b>	Refractive Index	ASTM D542	1.49
	Light Transmission, Total **	ASTM D1003	92%
	Haze	ASTM D1003	Less than 1%
	Yellowness index (YI)		Less than 0.3
	UV Spectral Transmission	ASTM D4802 Beckman	5% max
	Surface Abrasion Resistance (c) (Taber , CS-10)	ASTM D1044	500 cycles : < 1% 1000 cycles: <2%
<b>Thermal</b>	Maximum Continuous Service Temperature		175°F (d)
	Coefficient of Thermal Conductivity		1.45 Btu in./ft <sup>2</sup> 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)
<b>Electrical</b>	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
<b>Combustibility</b>	Smoke Density Rating Tunnel Test (smoke developed) ❖ 0.118" ❖ 0.236" Rate of Flame Spread ❖ 0.118" ❖ 0.236"  Fuel contribution factor Ignition temperature  Radiant Panel, Flame spread index ❖ 0.118" ❖ 0.236" Horizontal Burn ❖ 0.118" ❖ 0.236"	ASTM D2843  ASTM E84 ASTM E84  - ASTM D1929  ASTM E162  ASTM D635	13.5%  385 530  140 110  11,300 Btu/lb 750°F (399°C)  219 249  1.18 in./min. 0.65 in./min
	UL Horizontal Burn Rating	UL94	94 HB (f1); (f2)
<b>Miscellaneous</b>			
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
	Taste	-	n/a
	Dimensional tolerances, inches ❖ Length – width ❖ Squareness (Δ in length of diagonal)		+1/4" – 0" ≤ 1/4"
Compliances	Food Contact : FDA  Environmental: TSCA, REACH, DSL & EINECS (see MSDS for complete list)	21CFR 177.1010  -	clear (all thickness)   listed / included

**Notes:**

- Values provided should not be used for specification purposes. Some values will vary with sheet thickness.
- Measured at room temperature before and after heating above 300° F.
- Numerical values indicate % light transmission loss after indicated cycles.
- It is recommended that temperatures not exceed 180°F for continuous service

**\*All test performed on 0.236" thick acrylic, unless otherwise noted**

**\*\*Data is Optical value representative of LuciteLux® clear only. For information on color contact Technical Service at 1-800-4-LUCITE**

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