

# OPTIX L Acrylic



## Typical Properties

Property	Test Method	Units	OPTIX
<b>PHYSICAL</b>			
Specific gravity/relative density	ASTM D 792	-	1.19
Optical refractive index	ASTM D 542	-	1.49
Light transmission - Total	ASTM D 1003	%	92
Light transmission, Haze	ASTM D 1003	%	Less Than 1%
Water absorption	ASTM D 570	%	0.2
<b>MECHANICAL</b>			
Tensile strength	ASTM D 638	psi	11,000
Tensile modulus of elasticity	ASTM D 638	psi	465,000
Flexural strength	ASTM D 790	psi	14,700
Flexural modulus of elasticity	ASTM D 790	psi	461,000
Dielectric constant @ 1kHz	ASTM D 150		3
Dielectric constant @ 1mHz	ASTM D 150		2.7
Dielectric strength	ASTM D 149	volts/mil	354
Volume resistivity	ASTM D 257	ohms/cm	>3.912E+15 Ω/cm
Compressive strength	ASTM D 695	psi	83,300
Shear strength	ASTM D 732	psi	11,200
Rockwell hardness	ASTM D 785		M-100
<b>THERMAL</b>			
Maximum recommended continuous service temperature		°F	175
Forming temperature		°F	280 - 340
Deflection temperature @ 264 psi (1.8 MPa)	ASTM D 648	°F	200
Coefficient of thermal expansion	ASTM D 696	in/in/°F	3.5x10 <sup>-5</sup>
Thermal conductivity	ASTM C 177	BTU·ft/ft <sup>2</sup> /hr/°F	1.45 Btu in/ft <sup>2</sup> hr. °F
Smoke density rating	ASTM D 2843	%	13.5
Self-ignition temperature	ASTM D 1929	°F	750
Flame spread index	ASTM E 84		140