

Edge Lit Acrylic



TYPICAL PROPERTIES*

Property	Test Method	Units	Values
PHYSICAL			
Specific Gravity	ASTM D792	-	1.19
Water Absorption	ASTM D570		
24 hrs @ 23°C		%	0.2
2 hrs boiling water immersion		%	0.6
MECHANICAL			
Tensile Strength	ASTM D638	psi	11,000
% Elongation @ Break		%	7.6
Modulus of Elasticity		psi	465,000
% Elongation @ Yield		%	6.0
Flexural Strength		psi	14,700
Flexural Modulus	ASTM D790	psi	461,000
Impact Strength			
Compressive Strength (x-y plane)	ASTM D695	psi	83,300
Compressive Stress @ Yield		psi	18,000
Compressive Modulus		psi	279,000
Charpy (un-notched)	ASTM D256	ft-lb/in/in	5.0
Charpy (notched)	ASTM D6110	J/m	20.8
Shear Strength (punch tool)	ASTM D732	psi	11,200
Izod (procedure A)	ASTM D256	ft-lb/in	0.32
Rockwell Hardness	ASTM D785		M-100
Residual Shrinkage (Internal Strength)	ASTM D702	%	2.5 maximum
OPTICAL			
Refractive Index	ASTM D542	-	1.49
Haze	ASTM D1003	%	5 maximum
Light Transmission	ASTM D1003	%	89 minimum
Yellowness Index (YI)		-	< 0.5
THERMAL			
Maximum Continuous Service Temperature	-	°F	175
Coefficient of Thermal Conductivity	-	Btu-in/ft ² / hr/°F	1.45
Deflection Temperature Under Load, 264 psi	ASTM D648	°F	200
Coefficient of Linear Thermal Expansion	ASTM D696	in/in/°F	3.5 E-05
Specific Heat	-	Btu/lb/°F	0.35
Smoke Density Rating	ASTM D2843	%	13.5
Smoke Developed Index	ASTM E84	-	750
Flame Spread Index	ASTM E84	-	95
Specific Energy	-	Btu/lb	11,300
Self Ignition Temperature	ASTM D1929	°F	750
Radiant Panel, Flame Spread index	ASTM E162	-	155
Horizontal Burn	ASTM D635	in./min.	0.71
UL Horizontal Burn Rating	UL94	-	HB
ELECTRICAL			
Volume Resistivity Surface	ASTM D257	Ohm/cm	>3.912E+15
Resistivity Dielectric Strength	ASTM D257	Ohm/sq	> 5.237E+15
(2000v/sec) Dielectric Constant, k	ASTM D149	V/mil	354
60 Hz		Hz	3.3
1 KHz	ASTM D150	Hz	3.0
1 MHz		Hz	2.7
Dissipation Factor, D			
60 Hz		Hz	0.06
1 KHz		Hz	0.04
1 MHz		Hz	0.02
Arc Resistance	ASTM D495	-	No tracking

*All listed test values are on 0.236" thickness

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