

ACRYLIC SHEET

CURBELL
PLASTICS

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OPTIX® Acrylic Sheet Properties

Physical Properties	ASTM Test Method	Units	Values
Specific Gravity	D-792		1.19
Optical Refractive Index	D-542		1.49
Light Transmittance	D-1003		
Total		%	92
Haze		%	2
Sound Transmission	E 90 E 413	db	27
Water Absorption	D-570	% By Weight	0.40
Shrinkage	D-702	% Shrinkage	<5%

Mechanical	ASTM Test Method	Units	Values
Tensile Strength - Max.	D-638	psi	11,030
Tensile Elongation - Max.		%	5.8
Tensile Modulus of Elasticity		psi	490,000
Flexural Strength - Max.	D-790	psi	17,000
Flexural Modulus of Elasticity		psi	490,000
Izod Impact Strength - Molded Notch	D-256	ft-lb/in Notch	0.4
Izod Impact Strength - Milled Notch		ft-lb/in Notch	0.28
Tensile Impact Strength	D-1822	ft-lb/in ²	20
Abrasion Resistance Change in Haze	D-1044		
0 cycles		Haze, %	0
10 cycles		Haze, %	11.2
50 cycles		Haze, %	24.0
200 cycles		Haze, %	24.9
Rockwell Hardness	D-785		M-95

Thermal	ASTM Test Method	Units	Values
Maximum Recommended Continuous Service Temperature		°F	170-190
Softening Temperature		°F	210-220
Melting Temperature		°F	300-315
Deflection Temperature 264 psi	D-648	°F	203
66 psi		°F	207
Coefficient of Thermal Expansion -30 to 30°C	D-696	in/(in-°F) x10 ⁻⁵	3.0
Thermal Conductivity	C-177	BTU-ft/(hr-ft ² -°F)	0.075
Flammability (Burning Rate)	D-635	in/minute	1.019
Smoke Density Rating	D-2843	%	3.4
Self-Ignition Temperature	D-1929	°F	833
Flame Spread Index	E-84		115
Smoke Developed Index			550

Chemical	ASTM Test Method	Units	Values
Resistance to Stress - Critical Crazing Stress to:	ARTC modification of MIL-P-6997		
Isopropyl Alcohol		psi	900
Lacquer Thinner		psi	500
Toluene		psi	1,300
Solvesso 100		psi	1,600

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.