

Description

Lexan* 9034 uncoated polycarbonate sheet is the standard grade of Lexan sheet for transparent protective glazing. High-impact Lexan 9034 sheet may be an excellent candidate for primary glazing, or on either side of existing glazing for economical protection against breakage or intrusion. A better insulator than glass, Lexan 9034 sheet may contribute to lower energy costs.

Typical Property Values ♦

Property	Test Method	Unit	Value
Physical			
Specific Gravity	ASTM D792	—	1.20
Refractive Index @ 77°F	ASTM D542A	—	1.586
Light Transmission (Average), 1/8" disk	ASTM D1003	%	88
Rockwell Hardness	ASTM D785	—	M70
Abrasion Resistance, Taber Abrader, CS-17 wheel	ASTM D1044	mg/1,000 cycles	10
Water Absorption, Equilibrium, 24 hrs	ASTM D570	%	0.15
@ 73°F			0.35
@ 212°F			0.58
Mechanical			
Tensile Strength @ Yield	ASTM D638	psi	9,000
@ Ultimate			9,500
Tensile Modulus	ASTM D638	psi	345,000
Flexural Strength	ASTM D790	psi	13,500
Flexural Modulus	ASTM D790	psi	345,000
Flexural Endurance @ 1,800 cycles/min, 73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D695	psi	12,500
Compressive Modulus	ASTM D695	psi	345,000
Elongation	ASTM D638	%	110
Poisson's Ratio	—	—	0.37
Izod Impact Strength Notched @ 1/8"	ASTM D256A	ft-lbs/in	12–16
Unnotched @ 1/8"			60 (no failure)
Tensile Impact Strength, S-Type Specimen	ASTM 1822	ft-lbs/in ²	225–300
Shear Strength @ Yield	ASTM D732	psi	6,000
@ Ultimate			10,000
Shear Modulus	ASTM D732	psi	114,000
Deformation Under Load @ 4,000 psi @ 73°F	ASTM D621	%	0.2
@ 158°F			0.3
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTM C177	Btu•in/hr•ft ² •°F	1.35
Specific Heat @ 40°C		cal/gm•°C	0.30
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
@ 66 psi			280
Brittle Temperature	ASTM D746	°F	211
Flammability			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1
Electrical			
Dielectric Constant @ 10 Hz	ASTM D150	—	2.96
@ 60 Hz			3.17
Volume Resistivity	ASTM D257	ohm-cm	8.2 x 10 ¹⁶
Power Factor @ 60 Hz	ASTM D150		0.0009
@ 1,000,000 Hz			0.010
Arc Resistance	ASTM D495	sec	
Stainless Steel Strip Electrodes			10–11
Tungsten Electrodes			120

♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics representative or SABIC Innovative Plastics Quality Services Department.

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