GE
Plastics
Specialty Film & Sheet

Lexan* 9034 Sheet
Product Datasheet

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/in²	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	ASTM D621	%	
@ 73°F			0.2
@ 158°F			0.3

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Typical Property Values (continued)◆

Property	Test Method	Unit	Value
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75×10^{-5}
Coefficient of Thermal Conductivity	ASTM C177	Btu•in/hr•ft2•°F	1.35
Specific Heat @ 40°C		cal/gm/°C	0.30
Heat Deflection Temperature	ASTM D648	°F	
@ 264 psi			270
@ 66 psi			280
Brittle Temperature	ASTM D746	°F	–211
Flammability			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1
Electrical			
Dielectric Constant	ASTM D150	—	
@ 10 Hz			2.96
@ 60 Hz			3.17
Volume Resistivity	ASTM D257	ohm-cm	8.2×10^{16}
Power Factor	ASTM D150		
@ 60 Hz			0.0009
@ 1,000,000 Hz		0.010	
Arc Resistance	ASTM D495	sec	
Stainless Steel Strip Electrodes			10–11
Tungsten Electrodes			120

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