

TECHNICAL DATA SHEET

Lexan (PC) Polycarbonate

Lexan is an amorphous engineering thermoplastic, characterized by outstanding mechanical, optical, electrical and thermal properties. Lexan polycarbonate provides broad design versatility through its wide range of viscosities and product options such as: Environmentally conforming, flame retardancy, scratch resistance, toughness, heat resistance, weatherability, bio-compatibility, optical quality, and compliance with stringent FDA and USP requirements.

Lexan polycarbonate is supplied in a wide variety of grades.

TYPICAL PROPERTIES of POLYCARBONATE			
ASTM or UL test	Property	Unfilled	30% Glass
PHYSICAL			
D792	Density (lb/in ³) (g/cm ³)	0.043 1.2	0.052 1.43
D570	Water Absorption, 24 hrs (%)	0.12	0.12
MECHANICAL			
D638	Tensile Strength (psi)	9,500	19,000
D638	Tensile Modulus (psi)	320,000	-
D638	Tensile Elongation at Break (%)	60	10
D790	Flexural Strength (psi)	15,000	23,000
D790	Flexural Modulus (psi)	375,000	1,100,000
D695	Compressive Strength (psi)	12,000	18,000
D695	Compressive Modulus (psi)	240,000	500,000
D785	Hardness, Rockwell	M70 / R118	M92
D256	IZOD Notched Impact (ft-lb/in)	13	2
THERMAL			
D696	Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	3.9	1.2
D648	Heat Deflection Temp (°F / °C) at 264 psi	270 / 132	295 / 146
D3418	Glass Transition Temp (°F / °C)	293 / 145	300 / 149
-	Max Operating Temp (°F / °C)	250 / 121	270 / 132
C177	Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C)	1.3 6.9	1.3 6.9
UL94	Flammability Rating @ less than .45" (11.5mm) thickness @ .45" (11.5mm) thickness and above	H-B	H-B
ELECTRICAL			
D149	Dielectric Strength (V/mil) short time, 1/8" thick	390	470
D150	Dielectric Constant at 60 Hz	3.17	3.35
D150	Dissipation Factor at 60 Hz	0.0009	0.0011
D257	Volume Resistivity (ohm-cm) at 50% RH	10 ¹⁶	10 ¹⁶

Benefits

- High impact Strength
- Easily fabricated
- Outstanding clarity
- Wide temperature range

Applications

- Medical
- Electronics
- Marine
- Aerospace
- Automotive

SHAPE AVAILABLE



LEXAN is a registered trademark of SABIC Innovative Polymers (formerly GE Plastics).

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.

All values at 73°F (23°C) unless otherwise noted.