

Lexan* Polycarbonate

Lexan* polycarbonate is a mechanical grade of extruded polycarbonate that offers high strength, stiffness, and impact resistance with temperature resistance to 290°F. This material also has excellent electrical properties, making it a candidate for both the electronics industry and structural applications requiring transparency. A food grade polycarbonate is also available that is compliant with FDA, NSF, Canada AG, and USP Class VI regulations

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		1.20
Tensile Strength, 73°F	D638	psi	10,500
Tensile Modulus of Elasticity, 73°F	D638	psi	320,000
Elongation, 73°F	D638	%	100.0
Flexural Strength, 73°F	D790	psi	13,000
Flexural Modulus, 73°F	D790	psi	350,000
Shear Strength, 73°F	D732	psi	9,200
Compressive Strength, 10% Def., 73°F	D695	psi	11,500
Compressive Modulus of Elasticity, 73°F	D695	psi	300,000
Hardness, Rockwell, Scale as noted, 73°F	D785		M75 (R126)
Hardness, Durometer, Shore D scale, 73°F	D2240		D80
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	1.5
Limiting PV, 73°F	PTM55007	psi-fpm	1,000
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	3.90 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	290
Tg-Glass Transition (amorphous)	D3418	°F	293
Continuous Service Temperature in Air (Max.)		°F	250
Thermal Conductivity		BTU-in/(hr-ft ² °F)	1.30
Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	400
Surface Resistivity	EOS/ESD S11.11	Ohm/square	>10 ¹³
Dielectric Constant, 10 ⁶ Hz	D150(2)		3.17
Dissipation Factor, 10 ⁶ Hz	D150(2)		0.000

For additional information about our products call 1-800-366-0300 or via e-mail at select.support@qplas.com

All statements, technical information and recommendations contained in this publication are presented good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Quadrant EPP cannot guarantee the accuracy or completeness of this information, and it is the customer's responsibility to determine the suitability of Quadrant EPP's products in any given application. Fluorosint, Nylatron, Ertalyte, Acetron, MC and Techtron are all registered trademarks of Quadrant EPP. Delrin and Teflon are registered trademarks of E. I. DuPont, Torlon - Solvay Advanced Polymers, Ultem-GE Plastics.

Product Data Sheet



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Property	Method	Unit	Value
Chemical			
Acids, Weak, 73°F/23°C, acetic acid, dilute hydrochloric or sulfuric			Acceptable Service
Acids, Strong, 73°F/23°C, conc. hydrochloric or sulfuric			Unacceptable
Alkalies, Weak, 73°F/23°C, dilute ammonia or sodium hydroxide			Acceptable Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide			Unacceptable
Hydrocarbons-Aromatic, 73°F/23°C, benzene, toluene			Unacceptable
Hydrocarbons-Aliphatic, 73°F/23°C, gasoline, hexane, grease			Limited Service
Ketones, Esters, 73°F/23°C, acetone, methyl ethyl ketone			Unacceptable
Ethers, 73°F/23°C, diethyl ether, tetrahydrofuran			Unacceptable
Chlorinated Solvents, 73°F/23°C, methylene chloride, chloroform			Unacceptable
Alcohols, 73°F/23°C, methanol, ethanol, anti-freeze			Acceptable Service
Inorganic Salt Solutions, 73°F/23°C, sodium chloride, potassium cyanate			Acceptable Service
Continuous Sunlight, 73°F/23°C			Limited Service
Miscellaneous			
Water Absorption Immersion, 24 hr	D570	%	0.20
Water Absorption Immersion, Sat.	D570	%	0.40
Ionic Impurities - Na (Sodium)	Total Digestion	ppm	0.20
Ionic Impurities - K (Potassium)	Total Digestion	ppm	0.10
Ionic Impurities - Fe (Iron)	Total Digestion	ppm	0.30
Outgassing TML (Total Mass Loss)	E595	%	0.00
Compliance			
UL94			V-2

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