



## LEXAN®

### Characteristics

- \* Clear
- \* Structurally Rigid
- \* Easily Glued with Common Adhesives
- \* Readily Machined and Formed
- \* Minimal Water Absorbtion
- \* Significantly Stronger Than Glass

### Description

**Lexan** is an optically clear thermoplastic, unaffected by moisture, and offers a high strength-to-weight ratio. Often used as a substitute for glass where safety or weight is an issue it offers high light transmittance and can be easily heat-formed without loss of clarity. Immersion in water over extended periods does not significantly effect the mechanical or optical properties of this economical and multi-purpose material.

### Forms Available

ROD	.375 to 3.375 " diameter, Lengths to 48"
TUBE	Custom produced as requested
PLATE	.500" to 1.500" thick, Widths to 12", Lengths to 24"
COLOR	Black

### Typical Property Values

#### MECHANICAL @ 73°F

Specific Gravity	
Tensile Strength	psi
Tensile Modulus of Elasticity	psi
Tensile Elongation ( at Break )	%
Flexural Strength	psi
Flexural Modulus of Elasticity	psi
Shear Strength	psi
Compressive Strength, 10% Deformation	psi
Compressive Modulus of Elasticity	psi
Rockwell Hardness	M Scale
Izod Impact Strength, Notched	ft-lbs/in. of notch
Coefficient of Friction, Dynamic ( Dry vs. Steel )	
Limiting PV ( 4 :1 Safety Factor Applied )	ft.lbs/in. <sup>2</sup> min
Wear Factor	in <sup>3</sup> -min/ft.lbs. hr.
Water Absorption 24 hrs	% by wt.

#### THERMAL

Coefficient of Linear Expansion ( -40°F to 300°F )	in./in./°F
Heat Deflection Temperature @264 psi	°F
Melting Point ( Crystalline )	°F
Continuous Service Temperature in Air	°F
Thermal Conductivity	°F

#### ELECTRICAL

Dielectric Strength, Short Term	Volts/mil
Surface Resistivity	Ohms/Sq.
Dielectric Constant	1 MHz
Dissipation Factor	1 MHz

#### Celazole®

##### PBI

1.20
9,000
345,000
110
13,500
345,000
12,500
345,000
12 - 16

3.5 x 10 <sup>-5</sup>
270
1.35

( Properties listed above are provided for reference only, they should not be used for design specifications or quality control , Lexan is a registered Trademark of General Electric )