



CAST ACRYLIC

Characteristics

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

Description

Cast Acrylic is a 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 8" diameter, Lengths to 120"
 TUBE Custom produced as requested
 PLATE .125" to 4.000" thick, Widths to 24", Lengths to 48"
 COLOR Clear

Typical Property Values

MECHANICAL @ 73°F

Specific Gravity	
Density	lbs/in.
Tensile Strength	psi
Tensile Elongation (at Break)	%
Flexural Strength	psi
Flexural Modulus of Elasticity	psi
Light Transmittance	%
Refractive Index	%
Haze (Initial)	%
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. ² min
Wear Factor	in ³ -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
Forming Temperature	°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

Cast Acrylic

1.19
0.044
9,000
2
14,000
425,000
92
1.49
5
90
0.50
0.30
1.3 x 10 ⁵
300
190
2.80
3.00

(Properties listed above are provided for reference only, they should not be used for design specifications or quality control)