



# Acrylic Rod & Tube

**Description:** Acrylic's refractive characteristics create a play of light that shows quality and design details to best advantage. Acrylic rod can be readily heat-formed or bent to re-direct light. Its striking prismatic quality makes acrylic particularly conducive to chandeliers and other lighting fixtures.

Prolonged exposure to moisture, or even total immersion, does not significantly affect acrylic, causing no evident warping, swelling or loss of transparency. Acrylic extrusions are ideal for bathroom towel bars, kitchen articles and certain laboratory fixtures. Acrylic extrusions, made with a UV stabilizer, have excellent sun-resistance, maintaining their sparkle and bright new look even in the harshest weather. Acrylic extrusions are ideal for long-life outdoor applications such as illuminated signs.

Acrylics are unaffected by aqueous solutions of most common laboratory chemicals, by detergents, cleaners, dilute inorganic acids, alkalis, and aliphatic hydrocarbons. Acrylic is not recommended for use with chlorinated or aromatic hydrocarbons, esters and ketones.

## Physical Properties:

Property	Acrylic	ATSM
Refractive Index, nD	1.49	ASTM D-542
Specific Gravity	1.18	ASTM D-792
Tensile Strength	9,600	ASTM D-638 1/4" specimen (0.2"/min) Max psi
Tensile Modulus	410,000	
Flexural Strength	15,000	ASTM D-790 Span-depth ratio 16 (0.1"/min.) Max psi
Compressive Strength	14,500	ASTM D-695 (0.2"/min.) Max. psi
Impact Strength	0.4	ASTM D-256 Izod Molded Notch (per inch of notch) ft. lbs.
Rockwell Hardness	M-89	ASTM D-785
Light Transmission		ASTM D-1003
"As Received	92	Total White, %
Effect on Accelerated Weathering on Appearance of Clear Material		Fed. Test Std 406, Test Method 6024 (240 hours)
	None	Crazing
	None	Discoloration
	None	Warping
	None	Unmolding
Deflection Temperature Under Load, Unannealed	176°F	ASTM D-648 3.6° F/min, 264 psi
Dielectric Strength	500	ASTM D-149 Volts/mil
Dielectric Constant	3.7	ASTM D-150, 60 Hz
Flammability	0.6	ASTM D-635 Burning Rae in./min.
Water Absorption		ASTM D-570
	0.3	Wt. Gain on 24 hours water immersion
	None	Dimensional change on immersion %

### CAUTIONS:

Since acrylics are combustible, appropriate fire precautions should be observed. For building use, check for national and local codes. Impact resistance depends on mounting, condition of use, material thickness and surface integrity. Avoid exposure of acrylics to heat and aromatic solvents. Clean with soap and detergents and water only. Avoid abrasive cleaners.

*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.*

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