

Polycarbonate (PC) - Clear

Polycarbonate - Clear is a visually clear engineering thermoplastic that offers excellent dimensional stability over an extensive range of service temperatures. It is good for electrical or prototyping applications due to its good insulating properties, low moisture absorption, flammability rating, and ease of fabrication.

Applications

Common transparent applications consist of impact shields, fluid handling components, manifolds, impact resistant housings and covers, and prototyping parts. Other applications are electrically insulating components and components that serve as metal replacements or weight reduction.

Key Product Benefits

- Transparent
- Impact Resistance
- Great Stiffness
- Dimensional Stability
- Electrically Insulating
- Low Moisture Absorption
- Machinability
- Flame Retardant

Properties

Property	Test Method	Value
Flexural Modulus	ASTM D790	328,000 psi
Flexural Strength @ Yield	ASTM D790	13,100 psi
Rockwell Hardness (M Scale)	ASTM D785	77
Izod Impact, Notched	ASTM D256	17.0 ft-lb/in
Elongation @ Break	ASTM D638	140%
Elongation @ Yield	ASTM D638	6.0%
Tensile Strength @ Break	ASTM D638	11,600 psi
Tensile Strength @ Yield	ASTM D638	8,990 psi
Coefficient of Thermal Linear Expansion	ASTM D696	3.8 × 10 ⁻⁵ in/in/°F
Flammability	UL 94	V-0
Heat Deflection Temperature @ 66 psi	ASTM D648	288°F

Property (Continued)	Test Method (Continued)	Value (Continued)
Heat Deflection Temperature @ 264 psi	ASTM D648	268°F
Dielectric Constant @ 60 Hz	ASTM D150	2.95
Dielectric Constant @ 1 MHz	ASTM D150	2.90
Dielectric Strength	ASTM D149	760 V/mil
Haze	ASTM D1003	0.5-2.0%
Refractive Index	ASTM D542	1.585
Light Transmittance @ 118 mil	ASTM D1003	88%
Specific Gravity	ASTM D792	1.20
Water Absorption @ 24 hours	ASTM D570	0.2%