

PC (Polycarbonate) has outstanding impact strength, superior dimensional stability, high temperature resistance, and high clarity. This material has good weldability and can be electroplated. It is resistant to very high impact loading and also has low distortion under mechanical loads.

MECHANICAL PROPERTIES*

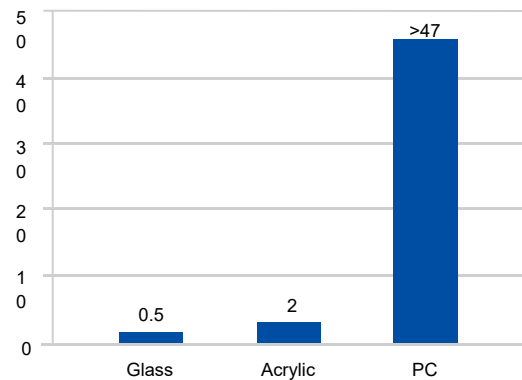
Tensile strength, Ultimate ASTM D-638	72 MPa
Tensile strength, Yield ASTM D-638	60 MPa
Tensile modulus ASTM D-638	2410 MPa
Elongation at break ASTM D-638	150%
Flexural strength ASTM D-790	96 MPa
Flexural modulus ASTM D-790	2410 MPa
Izod impact strength, Notched ASTM D-256	950 J/m
Rockwell hardness ASTM D-785	74 M Scale

*Typical properties are not intended for specification purposes.

PHYSICAL PROPERTIES*

Refractive index ASTM D-542	1.586
Water absorption, 24 hours ASTM D-570	0.15%

IMPACT RESISTANCE**



**Instrumented impact per ASTM D-3763, sample thickness 0.125" nominal.

FLAMMABILITY*

Horizontal burn, AEB ASTM D-635	25 mm
Ball Indentation Temperature IEC 598-1	>125 °C
Flame Class UL-94 @ 0.5mm UL-94 @ 3.0mm ASTM D635	V-2 V-2

ELECTRICAL PROPERTIES*

Dielectric Constant @60Hz ASTM D 150	3
Volume Resistivity @23°C, dry ASTM D 257	$2.0 \times 10^{17} \Omega\text{-cm}$
Dissipation factor ASTM D-150 @60Hz	0.001
Dielectric Strength ASTM D 149	17 KV/mm

THERMAL PROPERTIES

Coefficient of Linear Thermal Expansion, @-40 to 82°C ASTM D696	86×10^{-6} mm/mm/°C
Deflection Temperature Under Load (DTUL) @4mm @1.8MPa, Unannealed ASTM D 648	132 °C
Vicat Softening Point, 50°C /hr, 50N Load	151 °C

APPLICATIONS

Machine guards
Structural parts
Thermoformed components
Fabricated components

*Typical properties are not intended for specification purposes. Table provided are general and may vary PC 1302-05 TW/TH