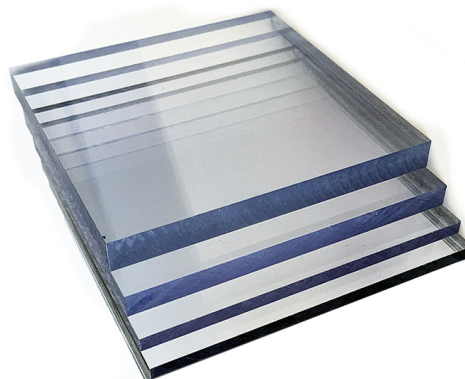


POLYCARBONATE (PC)

ENGINEERING PLASTIC

PRODUCT DESCRIPTION

Polycarbonate (PC) is an amorphous transparent material offering a combination of good electrical and mechanical properties. It is a material grade which lends itself well to a variety of industry applications. As well as being recyclable, Polycarbonate benefits from good machinability and can be accurately processed to close working tolerances. An enhanced version of Polycarbonate (PC GF 20) offers improved tensile strength and stiffness with lower coefficient thermal expansion.



KEY FEATURES

- High impact strength and heat resistance
- Good electrical insulation characteristics
- Fracture resistant
- Transparent with good dimensional stability

MACHINABILITY

Can be machined to close tolerances

APPLICATIONS

- Manifolds
- Automotive parts
- Safety glasses, impact guards
- Packaging

TYPICAL PROPERTIES OF STOCK SHAPES

Property	Units	Test Method	PC	PC GF 20
Specific Gravity	-	ASTM D 792	1.2	1.35
Water Absorption 24 hrs	%	ASTM D 570	0.15	0.16
Water Absorption Saturation	%	ASTM D 570	0.35	0.29
Flammability	-	UL 94	HB	HB
Tensile Strength	psi	ASTM D 638	10,000	16,000
Elongation	%	ASTM D 638	75	6
Modulus	psi	ASTM D 638	320,000	860,000
Flexural Strength	psi	ASTM D 790	13,000	19,000
Modulus	psi	ASTM D 790	340,000	800,000
Notched Izod	ft-lb/in	ASTM D 256	10	2
Rockwell Hardness	-	ASTM D 785	M75	M91
HDT @ 264 psi	°F	ASTM D 648	280	295
Coefficient Linear thermal expansion	in/in/oF	ASTM D 696	3.80×10^{-6}	1.5×10^{-65}
Dielectric Strength	V / mil	ASTM D 149	380	490
Volume Resistivity	ohm-cm	ASTM D 257	$>10^{13}$	10^{17}
Dielectric Constant	-	ASTM D 150	3.2	3.13