Available in:

Sheet Rod Tube

PC

Chemical Designation
PC (Polycarbonate)

Colour
transparent

Density
1.19 g/cm^3

Main features
- excellent impact strength
- excellent strength and stiffness
- excellent dimensional stability
- good machinability

Target Industries
- aircraft and aerospace technology
- food processing
- medical technology
- hygienic areas
- cleanroom technology
- packaging and paper machinery

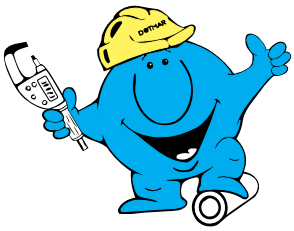
Mechanical properties	condition	value		test method
Modulus of elasticity (tensile test)	@ 73 °F	340,000	psi	ASTM D 638
Wear (K) factor	Against Steel, 40 psi, 50 fpm	2500*10^{-10}	in^3-min/ft-lbs-hr	ASTM D 3702
Tensile strength at yield	@ 73 °F	9100	psi	ASTM D 638
Elongation at break	@ 73 °F	90	%	ASTM D 638
Flexural strength	@ 73 °F	14,400	psi	ASTM D 790
Modulus of elasticity (flexural test)	@ 73 °F	320,000	psi	ASTM D 790
Impact strength (Izod)	@ 73 °F	2.0	ft-lbs/in	ASTM D 256
Rockwell hardness	@ 73 °F M Scale (R Scale)	70 (118)		ASTM D 785
Coefficient of friction	Dynamic, 40 psi, 50 fpm	0.38		ASTM D 3702

Thermal properties	condition	value		test method
Vicat softening point		309	°F	ASTM D 1525
Deflection temperature	@ 66 psi	280	°F	ASTM D 648
Deflection temperature	@264 psi	270	°F	ASTM D 648
Service temperature	Intermittent	275	°F	-
Service temperature	Long Term	250	°F	-
Thermal expansion (CLTE)		3.8*10^{-5}	in/in/°F	ASTM D 696
Specific heat		0.30	BTU/lb-F°	-
Thermal conductivity		1.39	BTU-in/hr-ft^2-°F	ASTM C 177

Electrical properties	condition	value		test method
Volume resistivity		1.0*10^{17}	Ω*cm	ASTM D 257
Dielectric strength		378	V/mil	ASTM D 149
Dissipation factor	@ 60 Hz, 73 °F	0.0009		ASTM D 150
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	3.17		ASTM D 150
Dielectric constant	@ 1MHz	2.96		ASTM D 150

Other properties	condition	value		test method
Moisture absorption	@ 24 hrs, 73 °F	0.15	%	ASTM D 570
Moisture absorption	@ saturation, 73 °F	0.35	%	ASTM D 570
Flammability (UL94)		HB		-

- 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. Contact us for manufacturers' complete material property datasheets.



Values may vary according to brand name. Please ask your Dtmar for more specific information about an individual brand.