

TECANAT® black - Stock Shapes

Chemical Designation

PC (Polycarbonate)

Colour

black

Density

1.19 g/cm³

Main features

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

Target Industries

- aircraft and aerospace technology
- food processing
- packaging and paper machinery

Mechanical properties	condition	value	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	320,000 psi	ASTM D 638	
Tensile strength at yield	@ 73 °F	9,000 psi	ASTM D 638	
Elongation at break	@ 73 °F	50 %	ASTM D 638	
Flexural strength	@ 73 °F	13,000 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	305,000 psi	ASTM D 790	
Compression strength	@10% strain, 73 °F	12,000 psi	ASTM D 695	
Compression strength	@1% strain, 73 °F	2,900 psi	ASTM D 695	
Compression modulus	@ 73 °F	295,000 psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.25 ft-lbs/in	ASTM D 256	
Rockwell hardness	@ 73 °F M Scale (R Scale)	70 (120)	ASTM D 785	
Thermal properties	condition	value	test method	comment
Vicat softening point		309 °F	ASTM D 1525	1) (1) Injection molded data
Deflection temperature	@264 psi	270 °F	ASTM D 648	2) (2) Injection molded data
Service temperature	Long Term	250 °F	-	3) (3) per UL746B
Service temperature	Intermittent	275 °F	-	
Electrical properties	condition	value	test method	comment
Volume resistivity		1.0*10 ¹⁶ Ω*cm	ASTM D 257	1) (1) Injection molded data
Dielectric strength		378 V/mil	ASTM D 149	2) (2) Injection molded data
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.08 %	ASTM D 570	1) (1) Injection molded data
Flammability (UL94)		HB	-	2) (2) @ 1.50 mm thickness

→ Resin specification:
ASTM D3935-09 PC0150B34840
Shapes specification:
ASTM D6098-10 S-PC0111

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