

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 (2) Injection molded data (3) per UL746B
Deflection temperature	@264 psi	270	°F	ASTM D 648	2)
Service temperature	Intermittent	275	°F	-	
Service temperature	Long Term	250	°F	-	3)
Electrical properties	condition	value		test method	comment
Volume resistivity		1.0*10 ¹⁶	Ω*cm	ASTM D 257	1) (1) Injection molded data (2) Injection molded data
Dielectric strength		378	V/mil	ASTM D 149	2)
Other properties	condition	value		test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.08	%	ASTM D 570	1) (1) Injection molded data (2) @ 1.50 mm thickness Injection molded data
Flammability (UL94)		HB		-	2)

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

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at www.ensingerplastics.com.

Date: 2017/08/23

Version: A0

Distributed by:



Call: 1 (866) 437-7427
Email: info@polymershapes.com
www.polymershapes.com