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PC-ABS

PC-ABS (polycarbonate-ABS) is one of the most widely used industrial thermoplastics. PC-ABS offers the most desirable properties of both materials - the superior strength and heat resistance of PC and the flexibility of ABS. PC-ABS blends are commonly used in automotive, electronics and telecommunications applications.

Mechanical Properties [1]	Test Method	English	Metric
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	5,900 psi	41 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	278,000 psi	1,917 MPa
Tensile Elongation (Type 1, 0.125" , 0.2" /min)	ASTM D638	6%	6%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	9,800 psi	68 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	280,000 psi	1,931 MPa
IZOD Impact, notched (Method A, 23°C)	ASTM D256	3.7 ft-lb/in	196 J/m
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	9 ft-lb/in	481 J/m

Thermal Properties [3]	Test Method	English	Metric
Heat Deflection (HDT) @66 psi	ASTM D648	230°F	110°C
Heat Deflection (HDT) @264 psi	ASTM D648	205°F	96°C
Vicat Softening	ASTM D1525	234°F	112°C
Coefficient of Thermal Expansion	- - - - - - - - -	4.10 E -05 in/in/°F	- - - - -
Glass Transition Temp (Tg)	DMA (SSYS)	257°F	125°C
Melt Point	- - - - - - - - -	Not Applicable[2]	Not Applicable [2]

Other [3]	Test Method	Value
Specific Gravity	ASTM D792	1.20
Density	ASTM D792	0.0397 lb/in^3
Flame Classifcation	UL94	HB (0.0335" , 0.85 mm)
Rockwell Hardness	ASTM D785	R110
Dielectric Strength	IEC 60112	35.0 kV/mm
Dielectric Constant @100 Hz	IEC 60250	3.1
Dielectric Constant @1 Mhz	IEC 60250	3.0

Layer Thickness Capability	Support Structure	Available Colors
0.013 inch (0.330 mm) 0.010 inch (0.254 mm) 0.007 inch (0.178 mm) 0.005 inch (0.127 mm)[2]	Soluble Supports	■ Black

The information presented are typical values intended for reference and comparison purposes only. They should not be used for d esign specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test cond itions, etc. Actual values will vary with build conditions. Product specifications are subject to change without notice.

[1] Build orientation is on side long edge. [2] Due to amorphous nature, material does not display a melting point. [3] Literature value unless otherwise noted.