

Polycarbonate-ABS Blend (PC-ABS)

A true industrial thermoplastic, this blend combines the most desirable properties of both materials; excellent features of ABS and the superior mechanical properties and heat resistance of polycarbonate. PC-ABS blends are widely used in automotive, electronics and telecommunications applications. When combined with the Fused Deposition Modeling (FDM) systems by Stratasys, this blend is ideal for the rapid production of prototypes, tooling and the direct (tool-less) manufacturing of production parts.

Mechanical Properties ¹	Test Method	Imperial	Metric
Tensile Strength, Type 1, 0.125	ASTM D638	5,040 psi	34.8 MPa
Tensile Modulus, Type 1, 0.125	ASTM D638	265,000 psi	1,827 MPa
Tensile Elongation, Type 1, 0.125	ASTM D638	4.3 %	4.3 %
Flexural Strength	ASTM D790 ASTM	8,600 psi	50 MPa
Flexural Modulus	D790	270,000 psi	1,863 MPa
IZOD Impact, notched	ASTM D256	2.3 ft-lb/in	123 J/a
IZOD Impact, un-notched	ASTM D256	6.1 ft-lb/in	326 J/a
Thermal properties	Test Method	Imperial	Metric
Heat Deflection (HDT), 264 psi	ASTM D648	205° F	96° C
Heat Deflection (HDT), 66 psi	ASTM D648	230° F	110° C
Vicat Softening	ASTM D1525	234° F	112° C
Coefficient of Thermal Expansion		4.10E-5 in/in F	
Glass Transition (T _g)	DMA (SSYS)	257° F	125° C
Melt Point		Not Applicable ²	Not Applicable ²
Other	Test Method	Value	Metric
Specific Gravity	ASTM D792	1.20	1.20
Density	ASTM D792	0.0397 lb/in ³	1.1 gr/cm ³
UL 94 Flame Class	UL94	HB 0.85mm	HB 0.85mm
Rockwell Hardness	ASTM D785	R110	R110
Dielectric S (kV/mm)	IEC 60112	35	35
Dielectric S (@100Hz)	IEC 60250	3.1	3.1
Dielectric C (@1Mhz)	IEC 60250	3.0	3.0

APPEARANCE

- Black

SYSTEM AVAILABILITY

- FDM Titan **TI**
- FDM Vantage **SE**
- FDM Vantage **S**

The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test conditions, etc. Actual values will vary with build conditions.

¹ Build orientation is on side edge. ² Do to amorphous nature, material does not display a melting point.

For more information about Stratasys systems and materials, contact your representative +1 888.480.3548 or visit www.stratasys.com

