

## PC/ABS

### Description:

Fillamentum PC/ABS is a material for the FDM 3D printing technology.

Filament can be with advantage used for objects with mechanical and thermal properties requirements. It offers high impact resistance.

This favorite compound is made from polymers improving temperature resistance given by polycarbonate part and ease of processing thanks to ABS. You always get great results of 3D printing.

This filament may be used for production of electrical and electronic equipment. It doesn't contain the restricted substances. The usage for food contact application is not recommended.

Fillamentum guarantees high precision of filament dimensions within the tolerance of +/- 0,05 mm. During the production, filament is made with the best stability of diameter, roundness and colour.



Physical properties	Typical Value	Test Method	Test Condition
Material density	1,07 g/cm <sup>3</sup>	ISO 1183-1	25 °C
Melt flow index	15 cm <sup>3</sup> /10 min	ISO 1133	220 °C, 10 kg
Diameter tolerance	± 0,05 mm		
Weight	600 g of filament (+ 230 g spool)		

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	42 MPa	ISO 527-1,2	at yield, 50 mm/min
Elongation	7 %	ISO 527-1,2	at break, 50 mm/min
Tensile modulus	2000 MPa	ISO 527-1,2	1 mm/min
Flexural strength	68 MPa	ISO 178	2 mm/min
Flexural modulus	2000 MPa	ISO 178	2 mm/min
Izod impact resistance	55 kJ/m <sup>2</sup>	ISO 180-1A	23 °C, notched
	41 kJ/m <sup>2</sup>	ISO 180/1A	-30 °C, notched
Charpy impact resistance	53 kJ/m <sup>2</sup>	ISO 179	23 °C, notched
Ball indentation hardness	92 N/mm <sup>2</sup>	ISO 2039-1	

Thermal properties	Typical Value	Test Method	Test Condition
Vicat softening temperature	113 °C	ISO 306	B50, 50 °C/h
	115 °C	ISO 306	B120, 120 °C/h
Coefficient of linear thermal expansion	0,89 × 10 <sup>-4</sup> /°C	ISO 11359-2	23 to 55 °C

Printing properties	Recommended	Notes
Print temperature	260-280 °C	Recommended settings! It may differ according to the printer and the object.
Hot pad	90-105 °C	Try your own optimization before printing.
Bed adhesive	Magigoo PC, 3Dlac	
Speed of printing	30-55 mm/s	
Other recommendation	10mm brim / raft	

Workability of 3D printing filament is at least 12 months from delivery.

The information was processed with the best knowledge of the manufacturer and it is for information only.