

BASIC INFORMATION

PRODUCT NAME: FILAMENT 3D PC-PBT+15GF (HT-UV-IMPACT) 1.75mm

PRODUCT DESCRIPTION: PC-PBT+15GF filament is a blend of polycarbonate (PC) and poly(butylene terephthalate) (PBT) with a 15% addition of glass fibers, provided in filament form for 3D printing using the FFF/FDM technology. The filament is wound on a spool, vacuum-sealed in a PA/PE bag with a desiccant, and packed in a cardboard box. The product is intended for use with 3D printers utilizing FDM technology. It should be used in a well-ventilated area to avoid exposure to emissions during printing. It is important to avoid direct contact with the printer's hot components, as this may cause burns. The filament should be stored in a dry place, in a sealed container, and kept out of reach of children. It is recommended to use the filament within the suggested printing temperature range to achieve optimal results. Filament waste should be disposed of in accordance with local regulations. The product has been designed with safety in mind and complies with all relevant consumer use standards.

STORAGE: Store in dry area. Store in a closed container.

PRODUCT PARAMETERS

PARAMETER	VALUE
Filament diameter [mm]	1.75
Diameter tolerance [mm]	+/-0,05
Oval tolerance [mm]	+/-0,02

RECOMMENDED PRINTING PARAMETERS

PARAMETER	VALUE
3D printing temperature [C]	250-280
Heated bed [C]	90-110
Cooling fan [%]	0-20
Closed chamber	recommended
Closed chamber temperature [C]	50-80
Recommended nozzle	steel
Drying conditions [C/h]	80/6

PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
Density	1,32	g/cm ³	ISO 1183
Tensile modulus	4650	MPa	ISO 527 (23stC, 1 mm/min)
Tensile stress at break	73	MPa	ISO 527 (23stC, 1 mm/min)
Tensile Strain at Break	4	%	ISO 527 (23stC, 1 mm/min)
Charpy impact strength	59	KJ/m ²	ISO 179/1 (23stC)
Charpy impact strength (notched)	13	KJ/m ²	ISO 179/1 (23stC)
Melting temperature	220	stC	ISO 3146
Temperature of deflection under load	145	stC	ISO 75-2/A (0,45 MPa)
Temperature of deflection under load	110	stC	ISO 75-2/A (1,80 MPa)
Maximum service temperature (50% decrease in tensile strength)	123	stC	IEC-60216(a few hours)
Flammability	HB	-	UL94 (0,75 mm)
Flammability	HB	-	UL94 (1,5 mm)
UV resistance	YES	-	-
Water absorption	0.3	%	ISO 62 (23stC)
Moisture absorption	0.1	%	ISO 62 (23stC, 50% r.h.)
Specific volume resistivity	1.0E15	Ohm*cm	IEC-62631-3-1
Specific surface resistivity	1.0E14	Ohm	IEC-62631-3-2

The values above have been measured using standard test specimens made of non-colored material at room temperature. The figures should be considered as indicative values only. Actual properties of PC-PBT+15GF (HT-UV-IMPACT) parts can be affected by the printing parameters, design of the model, ambient conditions, application of the printout etc. It is essential that users test our products to determine whether they are suitable for their intended use. ROSA PLAST Sp. z o.o. accepts no liability for any health detriment or material losses or any other losses related to the use of the material. Additional documents, certificates and detailed technical information can be provided on special request.

