TECHNICAL DATA SHEET

FILAMENT 3D PC-PBT+15CF (HT-UV-IMPACT)

Revision date: 29.07.2025

Date of issue: 18/09/2025

BASIC INFORMATION

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

PRODUCT DESCRIPTION: PC-PBT+15CF filament is a blend of polycarbonate (PC) and poly(butylene terephthalate) (PBT) with a 15% addition of carbonfibers, 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

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl

TECHNICAL DATA SHEET

FILAMENT 3D PC-PBT+15CF (HT-UV-IMPACT)

Revision date: 29.07.2025
Date of issue: 18/09/2025

PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
Gęstość/Density	1,28	g/cm3	ISO 1183
Moduł sprężystości/Tensile modulus	4950	MPa	ISO 527 (23stC, 1 mm/min)
Wytrzymałość na rozciąganie przy zrywaniu/Tensile stress at break	79	MPa	ISO 527 (23stC, 1 mm/min)
Wydłużenie przy zerwaniu/Tensile strain at break	3,5	%	ISO 527 (23stC, 1 mm/min)
Udarność metodą Charpy'ego/ Charpy impact strength	49	KJ/m2	ISO 179/1 (23 C)
Udarność metodą Charpy'ego (z karbem)/Charpy impact strength (notched)	10	KJ/m2	ISO 179/1 (23 C)
Temperatura topnienia/Melting temperature	222	C	ISO 3146
Temperatura ugięcia pod obciążeniem/Temperature deflection under load	145	C	ISO 75-2/A (0,45 MPa)
Temperatura ugięcia pod obciążeniem/Temperature deflection under load	110	C	ISO 75-2/A (1,80 MPa)
Maksymalna temperatura pracy (spadek wytrzymałości na rozciąganie o 50%)/Maximum service temp. (50% decrease in tensile strenght)	123	C	IEC-60216
Klasa palności/Flammability	HB	-	UL94 (0,75 mm)
Klasa palności/Flammability	HB	-	UL94 (1,5 mm)
Odporność na działanie UV/UV resistance	TAK/YES	-	-
Pochłanianie wody/Water absorption	0,3	%	ISO 62 (23 C)
Pochłanianie wilgoci/Moisture absorption	0,1	%	ISO 62 (23stC, 50% RH)

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl

TECHNICAL DATA SHEET

FILAMENT 3D PC-PBT+15CF (HT-UV-IMPACT)

Revision date: 29.07.2025

Date of issue: 18/09/2025

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+15CF (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.

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl