

PRODUCT NAME: 3D FILAMENT PC+PTFE 1,75mm

PRODUCT DESCRIPTION: PC + PTFE filament is a polycarbonate with addition of Teflon in the form of a thread, designed for 3D printing using the FFF/FDM method. Filament coiled on spools, vacuum-packed with desiccant in a PET/PE bag, and then in a box.

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
Net weight [g]	500
Weight with packaging [g]	900
Spool weight [g]	245
Small spool dimensions [mm] (ø / height / hole ø)	200/55/52
Box dimensions [mm]	218/209/62

RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	270-300
Bed temperature [°C]	90-120

We recommend that drying the filament before printing at 110°C for at least 3h.

PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,32	g/cm ³	ISO 1183
VICAT	145	°C	ISO 306 (50 N, 50°C/h)
Tensile modulus	2200	MPa	ISO 527 (23°C, 1 mm/min)

Tensile strength at break	55	MPa	ISO 527 (23°C, 5 mm/min)
Charpy impact strength	50	kJ/m ²	ISO 179/1 eU (23°C)
Charpy impact strength (notched)	12	kJ/m ²	ISO 179/1 eU (23°C)
HDT	130	°C	ISO 75 (1,81 MPa)
HDT	140	°C	ISO 75 (0,45 MPa)
Flame rating	HB	-	UL94 (1,5 mm)
Flame rating	V1	-	UL94 (3,0 mm)
Linear longitudinal shrinkage	0,55 – 0,75	%	ISO 294-4
Linear transversal shrinkage	0,60 – 0,75	%	ISO 294-4
Wear factor	4*10 ⁻⁷	mm ³ /(Nm)	ASTM D3702
Static coefficient of friction	0,18	-	ASTM D1894
Dynamic coefficient of friction	0,14	-	ASTM D1894
Specific Surface Resistivity	1*10 ¹²	Ω	ATM D257

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+PTFE 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.

