

PRODUCT NAME: 3D FILAMENT PA12+15CF

PRODUCT DESCRIPTION: PA12+15CF filament - thermoplastic polymer with carbon fiber 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]	small spool: 500 1000
	large spool: 2500
Weight with packaging [g]	small spool: 900 1400
	large spool: 3500
Spool weight [g]	small transparent spool: 245
	small wood spool: 190
	large spool: 710
Spool dimensions [mm] (ϕ / height / hole ϕ)	small spool: 200/55/52
	large spool: 300/103/52
Box dimensions [mm]	small spool: 218/209/62
	large spool: 340/320/115

RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	250-300
Bed temperature [°C]	70-120

We recommend that you dry the filament before printing at 80°C for at least 2-4h.

PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,06	g/cm ³	ISO 1183 (23°C)
Tensile modulus	7995	MPa	ISO 527-1/2 (23°C, 1 mm/min)

Tensile strength at break	123	MPa	ISO 527-1/2 (23°C, 5 mm/min)
Elongation at break	5	%	ISO 527-1/2 (23°C, 5 mm/min)
Charpy impact strength	73	kJ/m ²	ISO 179/1 eU (23°C)
Charpy impact strength (notched)	11	kJ/m ²	ISO 179/1 eU (23°C)
HDT	150	°C	ISO 75 (1,80 MPa)
HDT	170	°C	ISO 75 (0,45 MPa)
Melting point	179	°C	ISO 3146 (10°C /min)
Flame rating	HB	-	UL94 (1,6 mm)

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 PA12+15CF 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.

