

**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 PA/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]	<b>500</b>	<b>1000</b>	<b>3000</b>
Weight with packaging [g]	900	1400	4000
Spool weight [g]	Transparent PC: 245	Transparent PC: 260	710
	ECO PP wood: 190	ECO PP wood: 205	
Spool dimensions [mm] (ø / height / hole ø )	Transp. PC: 200/55/52	Transp. PC: 200/68/52	300/100/52
	ECO PP wood: 200/57/52	ECO PP wood: 200/70/52	
Box dimensions [mm]	220/210/65	220/210/75	325/310/110

## RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	250-300
Bed temperature [°C]	70-120
Cooling [%]	50-100
Closed chamber	Necessary
Chamber temperature [°C]	50-80
Recommended nozzle	Steel
Recommended nozzle size [mm]	≥0,5
<b>We recommend that you dry the filament before printing at 80°C for at least 2-4h</b>	

### PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,06	g/cm <sup>3</sup>	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 <sup>2</sup>	ISO 179/1 eU (23°C)
Charpy impact strength (notched)	11	kJ/m <sup>2</sup>	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)
Specific Surface Resistivity	<10*10 <sup>3</sup>	Ω	IEC-62631-3-2
Specific Volume Resistivity	<10*10 <sup>3</sup>	Ω*cm	IEC-62631-3-1

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.



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