

## BASIC INFORMATION

**PRODUCT NAME:** FILAMENT 3D ROSA TPU 75D 15 Glass Fiber, HT 1.75mm

**PRODUCT DESCRIPTION:** ROSA TPU 75D Automotive 15 Glass Fiber, HT filament is a thermoplastic polyurethane filament, enhanced with the addition of glass fibers, designed for 3D printing using FFF/FDM technology. The filament is supplied wound on a spool, vacuum-sealed in a moisture-proof bag with a desiccant, and packed in a cardboard box. The product is intended for use with FDM 3D printers. 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 can cause burns. The filament should be stored in a dry place, inside a sealed container, and kept out of reach of children. It is recommended to use the filament within the specified printing temperature range for optimal results. Filament waste should be disposed of in accordance with local regulations. The product is designed with safety in mind and complies with all relevant consumer safety 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]	230-255
Heated bed [C]	60-90
Cooling fan [%]	0-30
Closed chamber	recommended
Recommended nozzle	steel
Drying conditions [C/h]	70/4

\* Recommended to pre-dry the filament before each print, Avoid overheating/degradation of the plastic manifested by bubbles and/or foaming of the material structure

## PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
Gęstość/Density	1,31	g/cm <sup>3</sup>	-
Moduł sprężystości/Tensile Modulus	3000	MPa	ISO 527
Wytrzymałość na rozciąganie przy zrywaniu/Tensile stress at break	65	MPa	ISO 527
Wydłużenie przy zrywaniu/Tensile strain at break	25	%	ISO 527
Udarność metodą Charpyego / Charpy impact strength	100	kJ/m <sup>2</sup>	ISO 179/1eU (+23 C)
Udarność metodą Charpyego (z karbem)/ Charpy impact strength (notched)	70	kJ/m <sup>2</sup>	ISO 179/1eU (-30 C)
Udarność metodą Charpy'ego (z karbem)/Charpy impact strength (notched)	6	kJ/m <sup>2</sup>	ISO 179/1eA (-30 C)
Udarność metodą Charpyego/Charpy impact strength	100	kJ/m <sup>2</sup>	ISO 179/1 (23 C)
Udarność metodą Charpy'ego (z karbem)/Charpy impact strength (notched)	30	kJ/m <sup>2</sup>	ISO 179/1 (23 C)
Twardość/Hardness	75D	-	ISO 48-4(3s)
HDT B	110	C	ISO 72-2/B/0,45 MPa
HDT A	155	C	ISO 72-2/A/1,8 MPa

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 ROSA TPU 75D 15 Glass Fiber, HT 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.

