

## BASIC INFORMATION

**PRODUCT NAME:** FILAMENT 3D PET-G Structure HS 1.75mm

**PRODUCT DESCRIPTION:** PET-G Structure HS filament is a glycol-modified polyethylene terephthalate (PET-G) in filament form, designed for 3D printing using FFF/FDM technology. The filament is wound on a cardboard spool (spool-less), vacuum-sealed in a bag with a desiccant, and packaged in a cardboard box. The product is designed for use with 3D printers using FDM technology. It should be used in a well ventilated room to avoid exposure to fume emissions during printing. It is important to avoid direct contact with hot printer components, which can lead to burns. Filament should be stored in a dry place, in a closed container and away from children. It is recommended to use the filament within the recommended printing temperature range for optimum results. Dispose of waste filament in accordance with local regulations. The product has been designed with safety in mind and meets all relevant standards for consumer use.

**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]	230-260
Heated bed [C]	60-70
Cooling fan [%]	0.6
Closed chamber	no
Drying conditions [C/h]	60/4

\* Recommended to pre-dry the filament before each print.

## PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
<b>Gęstość /Density</b>	1,15-1,20	g/cm <sup>3</sup>	-
<b>Zapach/Odour</b>	bezwonny/odourless	-	-
<b>Moduł rozciągający/Tensile modulus</b>	2980	MPa	ISO 527-1
<b>Wytężalność na rozciąganie/Tensile Stress</b>	48	MPa	ISO 527-2
<b>Wydłużenie przy rozciąganiu/Tensile Strain</b>	3.8	%	ISO 527-2
<b>Wydłużenie przy zerwaniu/Tensile Strain at Break</b>	<=26	%	ISO 527-2
<b>Moduł zginający/Flexural Modulus</b>	1980	MPa	ISO 178
<b>Naprężenie zginające/Flexural Stress</b>	66	MPa	ISO 178
<b>Udarność metodą Izod'a (z karbem)/Izod impact strength (notched)</b>	<= 4,1	kJ/m <sup>2</sup>	ISO 180/A (-30stC)
<b>Udarność metodą Izod'a/Izod impact strength</b>	<= 120	kJ/m <sup>2</sup>	ISO 180 (-30stC)
<b>Temperatura odkształcenia cieplnego/HDT</b>	68	stC	ISO 75-2/B (0,45 MPa)
<b>Temperatura odkształcenia cieplnego/HDT</b>	62	stC	ISO 75-2/A (1,80 MPa)
<b>VICAT</b>	78	stC	ISO 306/A50
<b>Klasa palności/Flame rating</b>	V2	-	PN-EN 60695 (4mm)

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 PET-G Structure HS 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.

