

## BASIC INFORMATION

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

PET-G Standard filament - poly(ethylene terephthalate) with addition of glycol in the form of a thread, designed for 3D printing using the FFF/FDM method. Filament coiled on spools or cardboard core (no spool), vacuum-packed with desiccant in a PA/PE bag, and then in a 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

**PRODUCT DESCRIPTION:** 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]	220-250
Heated bed [C]	60-80
Cooling fan [%]	0-60
3D printing temperature (High Speed printing) [C]	240-270
Closed chamber	not required
Drying conditions [C/h]	60/4

## PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
<b>Density</b>	1.29	g/cm <sup>3</sup>	-
<b>Tensile modulus</b>	2980	MPa	ISO 527
<b>Tensile Stress at yield</b>	51	MPa	ISO 527
<b>Tensile strength at break</b>	51	MPa	ISO 527
<b>Tensile Strain at yield</b>	4	%	ISO 527
<b>Tensile Strain at break</b>	4	%	ISO 527
<b>Nominal Tensile Strain at Break</b>	29	%	ISO 527
<b>Flexural modulus</b>	2040	MPa	ISO 178
<b>Flexural stress</b>	68	MPa	ISO 178
<b>Izod impact strength (notched)</b>	4	kJ/m <sup>2</sup>	ISO 180, -30°C
<b>Izod impact strength (notched)</b>	4	kJ/m <sup>2</sup>	ISO 180/A, 0°C
<b>Izod impact strength (notched)</b>	4.7	kJ/m <sup>2</sup>	ISO 180/A, 23°C
<b>Izod impact strength (unnotched)</b>	120	kJ/m <sup>2</sup>	ISO 180, -30°C
<b>Izod impact strength (unnotched)</b>	no break	kJ/m <sup>2</sup>	ISO 180, 0°C
<b>Izod impact strength (unnotched)</b>	no break	kJ/m <sup>2</sup>	ISO 180, 23°C
<b>Glass Transition Temperature T<sub>g</sub></b>	80	°C	ASTM D3418
<b>VICAT</b>	78	°C	ISO 306

<b>HDT B</b>	68	°C	ISO 75, 0,45MPa
<b>HDT A</b>	62	°C	ISO 75, 1,8 MPa
<b>Flame rating</b>	V2	-	UL94 (4,0 mm)
<b>Food Contact Approval</b>	YES	-	FCA declaration in separate document

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 Standard 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.

