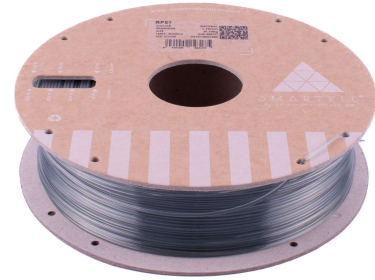


RPET

R-PET is a sustainable filament, it comes directly from the recycling of water bottles or soft drinks.

This material, unlike PETG, has greater rigidity, and less translucency, the rest of the properties are maintained.

It has the certificate of contact with food, and is a material suitable for medical use, in addition, it can be sterilized with gamma rays, ethylene oxide and autoclave.



Chemical resistance



Impact resistance



Thermal resistance

	VALUES	UNIT OF MEASUREMENT	STANDARD
PHYSICAL PROPERTIES			
Chemical composition	Recycled PET		
Density	1,37	g/cm ³	ISO 1183
MECHANICAL PROPERTIES ⁽¹⁾			
	XY PLANE	XZ PLANE	
Tensile strength	51,3	27,2	MPa
Traction module	2333,1	2358,3	MPa
Flexion strength	108,7	54,9	MPa
Flexion module	382,6	312,2	MPa
Elongation at maximum effort	2,6	1,8	%
Elongation by traction at break	5,4	1,8	%
Elongation by bending at break	16,2	3,1	%
Charpy impact force (no notch)	-	-	kJ/m ²
Hardness	84,5		Shore D

⁽¹⁾ Values obtained in printed specimens, nozzle 0,6 mm, 100% rectilinear filling, layer height 0,2 mm For more information, please contact us by email at info@smartmaterials.com or visit our website www.smartmaterials3d.com

THERMAL PROPERTIES			
Glass transition temperature (Tg)	79	°C	ISO 11357
VICAT B (50 N 50°C/h)	74	°C	ISO 306
HDT B (0,45 MPa)	73	°C	ISO 75

PRINTING PROPERTIES			
Printing temperature	260 – 280	°C	
Bed temperature	70 – 90	°C	
Layer fan	40 – 60	%	
Print speed	30 – 40	mm/s	
Material flow	100	%	
Layer height	≥ 0,2	mm	
Nozzle recommendations	≥ 0,4	mm	

SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	750 g	965 g	1,75 mm/2,85 mm	Natural	Cardboard box, cardboard coil, vacuum bag, desiccant.

NOTICE: The information provided in the data sheets is intended for reference only. It should not be used as design or quality control values. Actual values may differ significantly depending on printing conditions. The final performance of printed components is not only material dependent, design and printing conditions are also important.