Product card: PMMA filament for 3D printing

Product description: PMMA filament – is a thermoplastic transparent material in a form of fiber, could be known also as plexi or plexiglass The material used for 3D-printing using the FFF method. Filament wound on a spool, vacuum packed with a moisture absorber. The spool contains 1kg of net material. It can be used in all FFF printers that are not protected from external suppliers and open source structures before using. PMMA is characterized by high transparency and high surface gloss. PMMA is intended for experienced users.

Physical properties of the product:

Diameter of filament	1.75 mm / 2.85 mm
Dimensional tolerance of filament	+/- 0.05 mm
Roundness of filament	+/- 0.02 mm
Surface of the material	High gloss
Shrinkage of the material	Medium
Product weight	1.0 kg net, 1.36 kg gross
Spool - material	Transparent policarbonate
Weight of the empty spool	~250 g
The diameter of the spool	200 mm
Width of spool	~70 mm
Diameter of mounting hole	52 mm
Packaging	Printed cardboard
Package size	~205x205x80 mm
Vacuum packing	Yes
Moisture absorber	Yes

Suggested printing parameters:

Hotend	225-245°C
Heated bed	80-90°C
Cooling the printout	Optional

Due to the structural differences of printers, the above figures should be considered as guidelines and the corresponding values must be determined experimentally.

Physical properties of the material:

Specific Density	1.18 g/cm3	ISO 1183
Mold Shinkage	0,2 - 0,6%	ASTM D-955
Rockwell Hardness	M-89	ASTM D-785
Light Transmittance	92%	ASTM D-1003
Vicat Softening Temperature	90°C	ISO 306
Fire Resistance	HB	ASTM UL/94
Tensile Strength	65 MPa	ISO 527-2
Elongation at break	5%	ISO 527-2
Flexural Modulus	3100 MPa	ISO 178
Flexural Strength	97 MPa	ISO 178

Availability of colors and diameters:

Color	Kolor	1.75
Transparent	Transparentny	✔
Ruby Red Transparent	Rubinowy Transparentny	✔