

CPE HG100

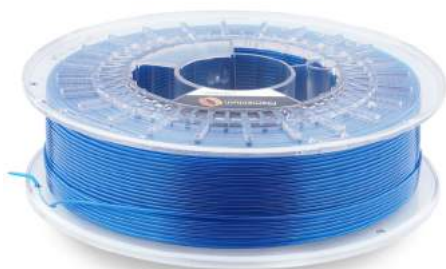
Description:

Filament from co-polyester can be with advantages used for 3D printing of technical objects. The material is durable and tough. CPE has higher tensile, flexural and impact strength, better thermal and chemical resistance in comparison with ABS or PLA filaments. Thanks to its ease of processing this type of filament is an excellent choice for your prints requiring better properties. Another advantage of the material is less odor produced during the printing and less shrinkage as compared with ABS.

This co-polyester contains bio based monomer and can be recycled. Therefore, it is a human-friendly and eco-friendly material. For all the colors we guarantee the FDA certificate.

Filament has great optical properties, very high gloss and clarity. The transparency and strength are also preserved in thin-wall prints from transparent colors.

Fillamentum guarantees high precision of filament dimensions within the tolerance +/- 0,05 mm, which is strictly controlled throughout production.



Physical properties	Typical Value	Test Method	Test Condition
Material density	1,25 g/cm ³	ASTM D792	
Melt flow index	1,6 g/10 min	ASTM D1238	230 °C, 1,2 kg
	5,9 g/10 min	ASTM D1238	230 °C, 3,8 kg
Diameter tolerance	± 0,05 mm		
Weight	750 g of filament (+ 250 g spool)		

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	47 MPa	ASTM D638	at break, 50 mm/min
	48 MPa	ASTM D638	at break, 50 mm/min
Elongation at break	150 %	ASTM D638	50 mm/min
Flexural strength	71 MPa	ASTM D790	1,27 mm/min
Flexural modulus	1860 MPa	ASTM D790	1,27 mm/min
Izod impact strength	NB	ASTM D256	23 °C, notched
Hardness	115	ASTM D785	Rockwell Hardness (R-scale)

Thermal properties	Typical Value	Test Method	Test Condition
Heat distortion temperature	80 °C	ASTM D648	0,455 MPa
Glass transition temperature	90 °C	ASTM D1525	

Optical properties	Typical Value	Test Method	Test Condition
Haze	< 1,0 %	ASTM D1003	
Transmittance	90 %	ASTM D1003	

Printing properties	Typical Value	Test Method	Test Condition
Print temperature	250-280 °C		
Hot pad	70-80 °C		
Speed of printing	50 mm/min		

Workability of 3D printing filament is at least 12 months from delivery.

The information was processed with the best knowledge of the manufacturer and it is for information only.