

## PLA Crystal Clear

### Description:

Fillamentum PLA Crystal Clear is a material for the FFF (also known as FDM) 3D printing technology.

The advantage of this material is that it can be used in 3D printers easily, that it allows a high quality of printing even in tricky details and an excellent lamination of the printed object.

PLA Crystal Clear is made from material with improved heat resistance in comparison with standard PLA filaments.

Thanks to its optical properties, objects printed from this filament have high clarity and gloss. In thin layer, the product excels by its transparency.

PLA Crystal Clear filament is made of natural ingredients and is easily biodegradable by composting. It complies with the requirements for food contact.

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



Physical properties	Typical Value	Test Method	Test Condition
Material density	1,24 g/cm <sup>3</sup>		
Melt flow index	3 g/10 min	ISO 1133-A	190 °C, 2,16 kg
	8 g/10 min	ISO 1133-A	210 °C, 2,16 kg
Diameter tolerance	± 0,05 mm		
Weight	750 g of filament (+ 250 g spool)		
Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	50 MPa	ISO 527-1	
Elongation at break	≤ 5 %	ISO 527-1	
Tensile modulus	3500 MPa	ISO 527-1	
Charpy impact strength	≤ 5 kJ/m <sup>2</sup>	ISO 179-1eA	23 °C, notched
Thermal properties	Typical Value	Test Method	Test Condition
Melting temperature	175 °C		
Glass transition temperature	55-60 °C	DSC	
Heat deflection temperature	55-60 °C	ISO 75-1	method B, 0,45 MPa, amorphous
	100-110 °C	ISO 75-1	method B, 0,45 MPa, crystalline
Printing properties	Typical Value	Test Method	Test Condition
Print temperature	190-210 °C		
Hot pad	40-50 °C		

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.