

## 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
Glass transition temperature	55-60 °C	DSC	
	55-60 °C	ISO 75-1	method B, 0,45 MPa, amorphous
Heat deflection temperature	100-110 °C	ISO 75-1	method B, 0,45 MPa, crystalline

Printing properties	Recommended	Notes
Print temperature	210-230 °C	Recommended settings! It may differ according to the printer and the object.
Hot pad	50-60 °C	Try your own settings before printing.
Bed adhesive	Magigoo	

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.