

## ICE FILAMENTS PLA PRODUCT CARD

ICE Filaments PLA is a tough, easy to use high grade PLA type of filament, ideal for 3D printing. Slightly modified, the filament retains the typical features of PLA, but makes it tougher and less brittle. Due to a low shrinkage factor ICE Filaments PLA will not deform after cooling. Poly lactic acid is a biodegradable plastic made from renewable natural resources and one of the most popular materials for 3D printing.

### FEATURES:

- ∞ Tougher and less brittle
- ∞ Easy to print at low temperature
- ∞ Low warping
- ∞ Biodegradable
- ∞ Limited smell



### COLOURS:

ICE Filaments PLA is available from stock in a variety of colors. Other colors on request.



FILAMENT SPECS		
Size	Ø tolerance	Roundness
1.75mm	± 0,05mm	≥ 95%
2.85mm	± 0,10mm	≥ 95%

MATERIAL PROPERTIES		
Description	Testmethod	Typical value
Specific Gravity	ISO 1183	1,24 g/cc
MFR 210°C/2,16kg	ISO 1133	9,56 gr / 10 min
Yield Stress	ISO 527	69,8 Mpa
Strain at yield	ISO 527	4,8%
Strain at break	ISO 527	19,5%
E-Modulus	ISO 527	3120 Mpa
Impact Strength – Charpy notched 23°C	ISO 179	3,4 kJ/m <sup>2</sup>
Moisture absorption	ISO 62	1968 ppm
Printing temperature	ICE FILAMENTS	180 – 210°C
Melting temperature	ISO 11357	77 – 146°C
Vicat softening temperature	ISO 306	60°C
Glass transition temperature	ISO 11357	57°C

### ADDITIONAL INFO:

Due to its low tendency to warp ICE Filaments PLA can also be printed without a heated bed. If you have a heated bed, the recommended temperature is ± 35 – 60°C.

ICE Filaments PLA can be used on all common desktop FDM or FFF technology 3D printers.

Storage: cool and dry (15 – 25°C) and away from UV light. This enhances the shelf life significantly.