Facilan™ PCL 100

Tensile test

Facilan[™] PCL 100 (polycaprolactone 100) is a polycaprolactone material used widely for research applications in biofabrication such as scaffolds, braces, implants, smart materials, hydrogels, tissue engineering and drug delivery. Polycaprolactone in is reported in research tough, strong, flexible, bioabsorbable, biocompatible and compostable. It is based on raw material compliant with European regulations EC No. 1935/2004 and EC No. 10/2011 concerning plastic materials and articles coming into contact with food. **Recommended restrictions**. Do not use in medical applications involving permanent implantation in the human body

MATERIAL PROPERTIES	TYPICAL VALUE	TEST METHOD
Density	1.1 g/cm ³	ISO 1183-1
Tensile Strength	45 MPa	ISO 527
Elongation at yield	15 %	ISO 527
Tensile Modulus	350 MPa	ISO 527
Flexural Strength		ISO 178:2010
Flexural Modulus		ISO 178:2010
Izod impact strength (notched)	8 kJ/m2	ASTM D256
Shore D Hardness	46	ASTM 2240
Heat Deflection Temperature	57°C	ISO 75 (0,45 MPa)

PRINT RECOMMENDATIONS	
Nozzle Temperature	130 - 170 °C
Bed Temperature	30 - 45 °C
Print Speed	20 - 40 mm/s
Bed Adhesion	Smoothpaper / PEI Sheet

Impact test

Disclaimer: ElogioAM makes no warranties what so ever, either expressed or implied, including but not limited to, any implied fitness for any particular purpose. From the moment the product is shipped it is beyond our control. The information in this document is believed to be correct at the time of writing. However, handling, processing, settings, the type of 3D printer, slicing and other variables are completely up to the user. The method through which the product is used can be varied. It is up for the customer to determine how it is 3D printed and whether it is fit for purpose or suited to a particular application.

- Printer: Ultimaker 2Nozzle temp: 140°C
- Bed temp : 38°C
 Infill : 100%
- ✓ Layerheight: 0.1 mm✓ Print speed: 30 mm/s✓ Wall thickness: 0.7 mm
- Wall line count : 2

Additional info: For many 3D printers Facilan™ PCL 100 will print best at approximately 140°C with a bed temperature of 38°C and a speed of 30 mm/s. In designs with significant overhangs and bridges best results are obtained with fans at 100%. To get the best results while printing we advise you to keep the 3D printer in a room where there is hardly any draft and/or temperature fluctuations. Keep the 3D printer out of direct sunlight. When the 3D printer is not being used it is important to keep the ElogioAM Facilan™ PCL 100 Filament in a bag and stored in a cool, dry and dark place until it is used again.

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