COPOLYESTER TEMPERATURE+

TECHNICAL DATA SHEET VERSION 1.0

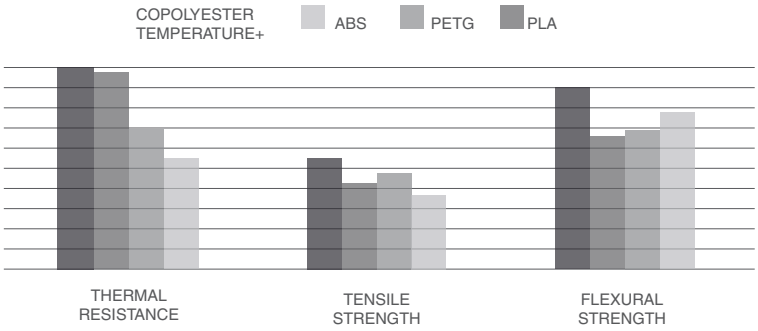
INNOVATEFIL®
by smart materials 3D

INNOVATEFIL® COPOLYESTER TEMPERATURE+

CO-POLYESTER TEMPERATURE+ is an amorphous co-polyester with high temperature resistance. Thanks to its high glass transition temperature and its amorphous nature, it allows you to make very large pieces without worrying about contractions, important features of this material are:

- High thermal resistance, achieving up to 110ºC.
- Endurance against oils, grease and alcohol.
- Styrene free.
- Same chemical resistance as PETG
- Stiffness similar to PC.
- Good UV resistance.

COMPARISON CHART



	TIPICAL VALUE	UNITS	TEST METHOD
PHYSICAL PROPERTIES			
Chemical Name	Copolyester		
Material Density	1.24	g/cm3	ASTM D792
Crystallization Temp.	110	ºC	ASTM D7426
Flexural Yield Strength	90	MPa	ASTM D790
Flexural Modulus	2.5	GPa	ASTM D790
Izod impact strength, Notched	24	J/m	ASTM D256
HDT (0,45 Mpa)	96	ºC	ASTM D648
Tensile Strength	56	MPa	ASTM D638

PRINTING PROPERTIES		
Print Temperature	260-280	ºC
Bed Temperature	90-110	ºC
Fan Layer	OFF	%
Print Speed	40-80	mm/s

SIZE	NET W.	GROSS W.	DIAMETERS	COLOR	PACKAGING
M	750 g	785 g	1’75 mm/2’85 mm	Natural	Box, Multilayer vacuum bag

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USE RECOMENDATIONS

PROTECT FROM MOISTURE

Innovatefil® CO-POLYESTER TEMPERATURE+ is delivered in a vacuum bag with a great barrier against moisture so that the filament cannot absorb humidity. Before bagging, the filament follows the strictest quality controls by dehumidifying the raw material until the moisture content is lower than 0.02%. During the process the filament is cooled down by dry air and next it is bagged to make sure the product is the highest quality.

Once the product is unpacked we recommend to keep it in a dry and dark environment. If not maintained in a suitable environment the material can absorb up to 0.5% atmospheric moisture, this can create water vapour in the extrusion that can end up in a bad surface finish.

USE A SUITABLE DEVICE FOR PRINTING

This material requires demanding printing conditions, an extruder that can reach 270 ºC and a hot bed able to reach 100 ºC, make sure that your printer can achieve these temperatures in order to make your working pieces.

KEEP THE EXTRUDER IN GOOD CONDITION

Once printing is finished it is necessary to clean the nozzle eliminating the excess of material to avoid seals and defects unwanted, if several materials are used it is advisable to have a nozzle for each material to avoid being mixed.