

## EASY PRINT (EP)

Smartfil EP is a PLA filament modified to be able to machine it and achieve a completely smooth superphysical finish. Sanding it with water-based sandpaper leaves a finish similar to ceramic and can also be painted with any type of paint.

It is a recommended material for architecture, dentistry, restoration, models or imitations of sculptures.



Allow for all printers



Machinable

	VALUES		UNIT OF MEASUREMENT	STANDARD
<b>PHYSICAL PROPERTIES</b>				
Chemical name	Polylactic acid			
Density	1,29		g/cm <sup>3</sup>	ASTM D792
<b>MECHANICAL PROPERTIES <sup>1</sup></b>				
	XY PLANE	ZX PLANE		
Tensile strength	19,8	13,1	MPa	ISO 527
Traction module	1189,4	1489,8	MPa	ISO 527
Flexion strength	71,1	20,5	MPa	ISO 178
Flexion module	3446,3	3162	MPa	ISO 178
Elongation at maximum effort	0,7	1	%	ISO 527
Elongation by traction at break	0,9	1	%	ISO 527
Elongation by flexion at break	5,5	1,2	%	ISO 178
Charpy Impact Force (non-notched)	13,8	1,3	kJ/m <sup>2</sup>	ISO 179
Hardness	89,4		Shore D	ISO 7619-1

<sup>1</sup> Values obtained on printed specimens, nozzle 0,4 mm, rectilinear infill 100%, layer height 0,2 mm. For more information please contact us by email at [info@smartmaterials.com](mailto:info@smartmaterials.com) or visit our website [www.smartmaterials3d.com](http://www.smartmaterials3d.com)

<b>THERMAL PROPERTIES</b>				
Glass transition temperature (Tg)	61		°C	ISO 11357
VICAT B (50 N 50°C/h)	59		°C	ISO 306
HDT B (0,45 MPa)	60		°C	ISO 75

<b>PRINTING PROPERTIES</b>				
Printing temperature	190 – 205		°C	
Bed temperature	40 – 60		°C	
Layer fan	100		%	
Material flow	100		%	
Layer height	≥ 0,1		mm	
Nozzle recommendations	≥ 0,2		mm	
Print speed	30 – 60		mm/s	

SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	750 g	975 g	1,75 mm/2,85 mm	Several	SmartBag, security seal, desiccant bag.

NOTICE: The information provided in the data sheets is intended for reference only. It should not be used as design or quality control values. Actual values may differ significantly depending on printing conditions. The final performance of printed components not only depends on materials, design and printing conditions are also important.