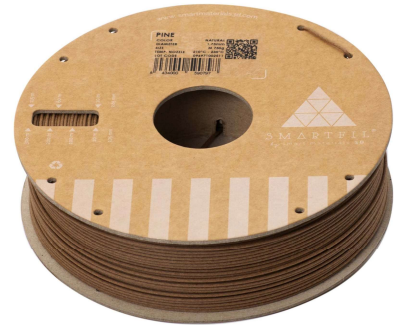


CORK

Filament for biodegradable and compostable 3D printing of high quality, obtained from a polymer matrix and a load from the reuse of organic materials, in this case, cork.

The pieces printed with this material are characterized by having a very soft, matt, and pleasant to the touch finish. This filament has a dark tone that differentiates it from other sustainable filaments.



Allow for all printers



Biodegradable



Compostable

	VALUES		UNIT OF MEASUREMENT	STANDARD
PHYSICAL PROPERTIES				
Chemical composition	PLA compound with cork fibers.			
Density	1,05		g/cm ³	ISO 1183
MECHANICAL PROPERTIES ⁽¹⁾				
	XY PLANE	XZ PLANE		
Tensile strength	23,2	9,2	MPa	ISO 527
Traction module	1301,7	1032,5	MPa	ISO 527
Flexion strength	43,8	18,1	MPa	ISO 178
Flexion module	221,5	201,3	MPa	ISO 178
Elongation at maximum effort	1,6	1,1	%	ISO 527
Elongation by traction at break	1,7	1,1	%	ISO 527
Elongation by flexion at break	4,8	3,2	%	ISO 178
Charpy impact force (no notch)	11,8	-	kJ/m ²	ISO 179
Hardness	81		Shore D	ISO 7619 - 1
⁽¹⁾ Values obtained in printed specimens, nozzle 0,6 mm, 100% rectilinear filling, layer height 0,2 mm for more information, please contact us by email at info@smartmaterials.com or visit our website www.smartmaterials3d.com				
THERMAL PROPERTIES				
Glass transition temperature (Tg)	59		°C	ISO 11357
VICAT B (50 N 50°C/h)	56		°C	ISO 306
HDT B (0,45 MPa)	58		°C	ISO 75
PRINTING PROPERTIES				
Printing temperature	200 - 230		°C	
Bed temperature	40 - 60		°C	
Layer fan	100		%	
Print speed	25 - 50		mm/s	
Material flow	100		%	
Layer height	≥ 0,2		mm	
Nozzle recommendations	≥ 0,6		mm	

SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	750 g	1065 g	1,75 mm/2,85 mm	Natural	Cardboard box, cardboard coil, vacuum bag, desiccant.

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 is not only material dependent, design and printing conditions are also important.