## **TECHNICAL DATA SHEET**

**VERSION 1.1** 



## **CORK**

It's a PLA Filament biodegradable and compostable for high quality 3D printing, its obtained from a polymer matrix and a charge from the reuse of organic materials, in this case, cork.

The objects printed with this material are characterized by having a very soft, matte and pleasant to the touch finish.

This filament has a dark shade that differentiates it from the rest of sustainable filaments.











Biodegradable Compostable Biodegradable Compostable

PHYSICAL PROPERTIES	VALUES		UNIT OF MEASUREMENT	STANDARD
Chemical composition Density	Composed o 1.05	f PLA with cork fibers.	g/cm³	ISO 1183
MECHANICAL PROPERTIES (1)	XY PLAN	PLANO XZ		
Tensile strength	23.2	9.2	MPa	ISO 527
Traction module	1301.7	1032.5	MPa	ISO 527
Flexible force	43.8	18.1	MPa	ISO 178
Bending modulus	221.5	201.3	MPa	ISO 178
Traction elongation (until breakage)	1.5	0.7	%	ISO 178
Charpy Impact Force (notch, 23°C)	-	-	kJ/m²	ISO 179
Hardness	81		Shore D	ISO 7619 – 1

<sup>(1)</sup> Values obtained on printed specimens, nozzle 0.6 mm, 100% rectilinear infill, layer height 0.2 mm for more information please contact us by email at info@smartmaterials.com or visit our website www.smartmaterials3d.com

Printing temperature	200 – 230	°C
Bed temperature	40 – 60	°C
Cover fan	100	%
Print Speed	25 – 50	mm/s
Flow	100	%
Cover height	≥ 0.2	mm
Nozzle recommendations (Brass)	≥ 0.6	mm

SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETROS	COLOR	PACKING
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 to be for reference only. It should not be used as design values or quality control. Actual values can differ significantly depending on printing conditions. The final performance of printed components not only depends on the materials, designing and printing conditions are also important.