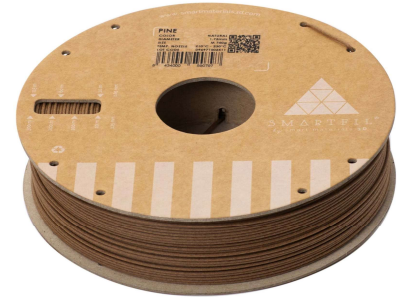


## PINE

It is a PLA filament with a high load of pine wood fibers, it is biodegradable and compostable. Thanks to the wood particles the surface finish of the pieces is similar to natural wood. This results in a nice colour and organic feel.

Recommended for decoration, prototyping, design, and pieces that require an aesthetics and feel similar to wood.



Allow for all printers



Biodegradable



Compostable

	VALUES	UNIT OF MEASUREMENT	STANDARD
<b>PHYSICAL PROPERTIES</b>			
Chemical composition	PLA compound with pine wood.		
Density	1,09	g/cm <sup>3</sup>	ISO 1183
<b>MECHANICAL PROPERTIES <sup>(1)</sup></b>			
	XY PLANE	XZ PLANE	
Tensile strength	32,4	12,8	MPa
Traction module	2944,4	1841,9	MPa
Flexion strength	65,2	23,8	MPa
Flexion module	3304	1737,2	MPa
Elongation at maximum effort	1,2	0,8	%
Elongation by traction at break	1,2	0,8	%
Elongation by flexion at break	2,5	3,3	%
Charpy impact force (no notch)	-	-	kJ/m <sup>2</sup>
Hardness	82,4		Shore D

<sup>(1)</sup> 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](mailto:info@smartmaterials.com) or visit our website [www.smartmaterials3d.com](http://www.smartmaterials3d.com)

<b>THERMAL PROPERTIES</b>			
Glass transition temperature (T <sub>g</sub> )	59	°C	ISO 11357
VICAT B (50 N 50°C/h)	57	°C	ISO 306
HDT B (0,45 MPa)	59	°C	ISO 75

<b>PRINTING PROPERTIES</b>			
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.