

# TECHNICAL DATA SHEET

## Filaticum PLA

3D printing filament for FDM/FFF printer

### Product Description

Filaticum PLA products differ from most used filaments in that they are composite material, which means, that in addition to PLA they contain several ingredients: pigment, lubricant, filler, impact modifier. Modification of PLA resulted a "softer" filament with easy to print characteristic, even at lower temperature. The low shrinkage of Filaticum PLA results, that the printed object will not deform, accordingly, there is no need for heated bed.

### Specification

	Filaticum PLA
Diameter	1,75 mm, 2,85 mm
Tolerance	+0,05 mm, +0,1 mm
Colours	white, black, red, blue, green, yellow ...
Weight	0,75 kg, 1, 0 kg, 2,5 kg
Filament length	ca.: 250 m/0,75 kg

### Printer Settings

Nozzle temperature	195-225 °C
Nozzle size	0,2-1,2 mm
Bed temperature	max 70 °C
Bed condition	kapton, glass, tape or glue
Cooling fan	up to 100%
Layer height	0,4-0,8 mm
Print speed	20-80 mm/s, optimal, max 250 mm/s

This printer setting recommended for the starting, can be modified according to the printer, printed objects and required mechanical parameters.

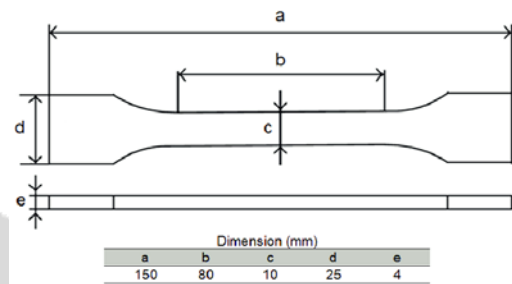
### Raw Material Properties

Physical properties *	Method	PLA
Specific Gravity, g/cm <sup>3</sup>	D792	1.24
Heat Distortion Temp (HDT)*, °C	D790	55
Glass Trans. Temp, °C	D3418	55-60
Tensile Strength, MPa	ISO 527	60
Tensile Elongation, %	ISO 527	6,00
Tensile Modulus, MPa	ISO 527	3800
Notched Izod Impact, kJ/m <sup>2</sup>	ISO 180	16

\*Typical properties for injection molded amorphous bars; not to be construed as specifications.

\*\*66 psi (0.45 MPa)

## Mechanical Properties of 3D Printed Specimen



Property		Test method
Tensile Strength	32 +/-2 MPa	ISO 527
Tensile Modulus	1,8 +/-0,1 GPa	ISO 527
Tensile Elongation	2-4 %	ISO 527
Notched Izod Impact	4,95 kJ / m2	ISO 180

## Material Safety

RoHS compliance	yes
REACH compliance	yes

## Producer

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