

# TECHNICAL DATASHEET

## Filaticum PLA ESD

3D printing filament for FDM/FFF printer

### Product Description

This filament is used mainly in the electronics industry, where electrostatic charging of a printed object can cause problem. Objects printed with Filaticum ESD does not charge electrostatically due to the special additives. Filaticum ESD provides surface resistance at megaohm order of magnitude, but this highly depends on the size and shape of the printed object.

### Applications

Boxes, containers, covers which protect the products manufactured in the electronics industry. Covers of products used in electrical environment. ESD safe fixtures and parts. Covers and boxes of electronic devices.

### Specification

Code	PLAESD010, PLAESD011
Diameter	1,75 mm, 2,85 mm
Tolerance	+0,05 mm, +0,1 mm
Colour	black
Weight	0,75 kg, 2,5 kg
Filament length	ca.: 250 m/0,75 kg

### Printer Settings

Nozzle temperature	195-250 °C
Nozzle size	0.4-1,2 mm
Bed temperature	max 70 °C
Bed condition	caption, glass, tape or glue
Cooling fan	recommended up 100%
Layer height	0,4-0,8 mm
Print speed	20-80 mm/s, optimal, max 250 mm/s

These printer settings are recommended for the start, they could be modified according to the printer, the printed objects and the required mechanical parameters.

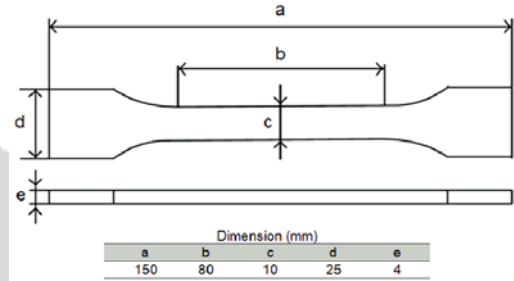
### Raw Material Properties

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



Properties		Test method
Tensile Strength	under testing	ISO 527
Tensile Modulus	under testing	ISO 527
Tensile Elongation	under testing	ISO 527
Notched Izod Impact	under testing	ISO 180

## Material Safety

RoHS compliance	yes
REACH compliance	yes

## Producer

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