

Nanovia PETG ESD :

Antistatic discharge

Protect your sensitive electronic devices with ESD filament. Nanovia PETG ESD prevents the accumulation of static electricity by gradually discharging it. It can house circuits and components that go up to 80 °C and doesn't leave any residue in the case of friction unlike carbon based ESD filaments.

Properties

3D Printing

Extrusion temperature	245 – 255 °C	
Plate temperature	85 – 90 °C	
Enclosure temperature	20 °C	
Nozzle (minimal)	0.5 mm	
Diameter	1.75 mm	+/- 50 µm
Colour	Gray	

Mechanical properties

Physical

Density	1.32 g/cm ³	ISO 1183
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Tensile

Test performed at 1mm/min on 3D printed test specimens at 0°, along with the tension stress.

Young's modulus	2265 MPa	ISO 527-2/1A
Ultimate strength	44 MPa	ISO 527-2/1A
Elongation ultimate strength	3.2 %	ISO 527-2/1A



Advantages

- Discharges static electricity
- Easy printing



- Good temperature resistance (80 °C)
- Suited for clean rooms / doesn't leave any trace

Application recommendations

Storage

- Store in airtight container with desiccant, out of direct sunlight.
- Dehydrate for 8h at 60 °C prior to printing.

Post treatment

- For the ESD properties to be active, Nanovia PETG ESD parts should not be covered with paints.

Health and safety

Printing

- We recommend printing Nanovia PETG ESD in a room equipped with air extraction or by using appropriate breathing equipment.

Post traitement

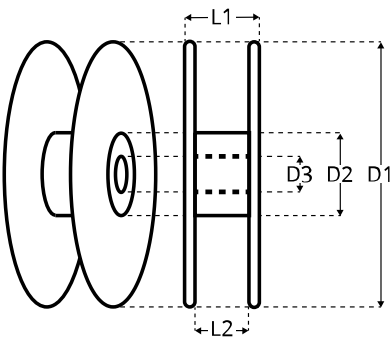
- Standard PPE recommended (dust mask, gloves)

Certifications

- Certification RoHS Nanovia PETG ESD :



Packaging



Vacuum packed spools, with desicant, packed in individual boxes with engraved serial number.

Other formats available on demand.

Spool	L1	L2	D1	D2	D3	Weight
500g	53	46	200	90	52	182 g
2kg	92	89	300	175	52	668 g

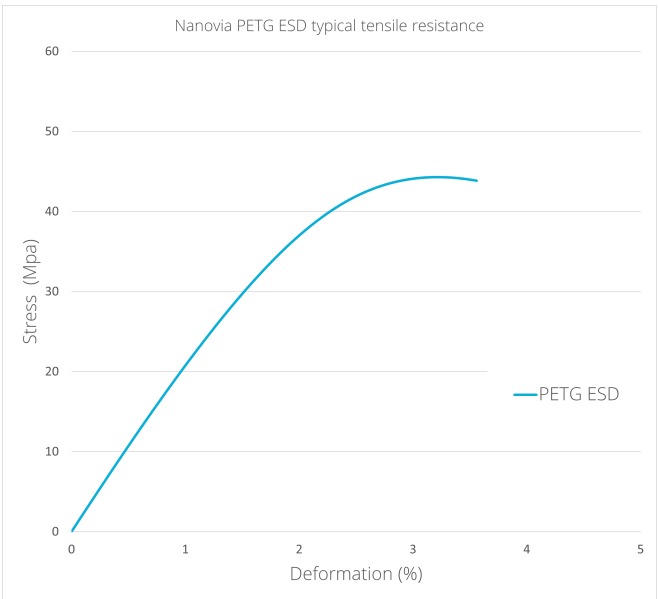
www.nanovia.tech/ref/petg-esd

Test performed at 1mm/min on 3D printed test specimens successively at 45° and -45° per layer.

Young's modulus	2130 MPa	ISO 527-2/1A
Ultimate strength	43 MPa	ISO 527-2/1A
Elongation ultimate strength	3.4 %	ISO 527-2/1A

Test performed at 1mm/min on 3D printed test specimens at 90°, oposite to the tension stress.

Young's modulus	1834 MPa	ISO 527-2/1A
Ultimate strength	24 MPa	ISO 527-2/1A
Elongation ultimate strength	1.5 %	ISO 527-2/1A



Thermal properties

Tg	80 °C
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Electrical properties

Electrical resistivity	10 ⁹ Ω
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last updated : 26/02/2024