

# Nanovia PA Food Industry

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## Magnetic field detectable

This metal detector visible, (EU) No 10/2011 & FDA food contact certified 3D printer filament, suits the needs of the agri-food industry. Able to withstand temperatures of over 100 °C, it possesses a great chemical resistance, notably to cleaning products and disinfectants. With its good adhesion, and low retraction, Nanovia PA FI can be 3D printed without an enclosure.

## Avantages

- Detectable with industrial tunnel metal detectors
- Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (incl. Regulation (EC) 1245/2020)
- FDA 21 CFR §§ 178.3297
- Printable without enclosure
- Good chemical resistance

## Application recommendations

Polyamide is a semi-crystalline polymer, and is sensitive to humidity and oxidation due to its polar groups at high temperatures. Both mechanical and dimensional properties can be affected by the storage and printing conditions.

## Storage

- Store in airtight container with desiccant, out of direct sunlight.
- Dehydrate for 6 h at 100 °C prior to printing.

## Printing

- A reinforced nozzle, suitable for abrasive materials is recommended.

## Properties

### 3D Printing

Extrusion temperature	265 – 290 °C	
Plate temperature	70 – 80 °C	
Enclosure temperature	20 °C	
Nozzle (minimal)	0,6 mm	
Diameter	1,75 & 2,85 mm	+/- 50 µm
Colour	Blue	

### Mechanical properties

#### Physical

Density	1,30 g/cm <sup>3</sup>	ISO 1183
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#### Tensile

Test performed at 50mm/min on ISO 3167 A test specimens

Young's modulus	3800 MPa	ISO 527-2/1A
Ultimate tensile strength	83 MPa	ISO 527-2/1A
Ultimate tensile strength elongation	4,0 %	ISO 527-2/1A

#### Impact

Charpy	81 kJ/m <sup>2</sup>	ISO 179 1eU
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Printing

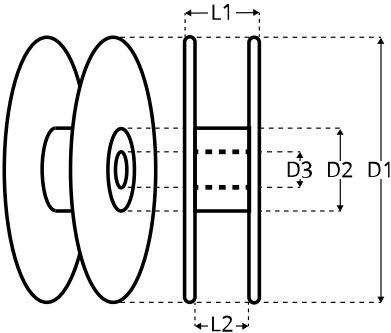
- Print in a ventilated area

Post traitement

- Standard PPE recommended (dust mask, gloves)

Certifications

- Nanovia PA FI certifeid RoHS :



Packaging

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

Other formats available on demand.

Bobine	L1	L2	D1	D2	D3	Weight
500g	53	46	200	90	52	194 g
2kg	92	89	300	175	52	502 g

[www.nanovia.tech/ref/pa-fi](http://www.nanovia.tech/ref/pa-fi)