

Nanovia PSU :

High temperature resistance

Close to PVDF, PSU is often used for the transport of solvent, hydrocarbures, acids, and bases. Unlike PVDF, PSU is an insulator making it suitable for battery enclosures. Furthermore, PSU is more rigid compared to PVDF.



Avantages :

Insulating • Solvent resistant • Rigid

3D printing

Extrusion temperature	300 - 390 °C	Enclosure temperature	110 °C
Plate temperature	110 - 140 °C	Nozzle (minimum)	All

Mechanical properties

	Physical				Flexion		
Density	1.24	g/cm ³	ASTM D792	Young modulus	2690	MPa	ASTM D790
Water absorption (24h)	0.3	%	ASTM D570	Ultimate strength	106	MPa	ASTM D790
	Traction				Impact		
Young modulus	2480	MPa	ASTM D638	Izod (notched)	69	J/m	ASTM D256
Ultimate strength	70.3	MPa	ASTM D638				
Elongation at break	50 - 100	%	ASTM D638				

Thermal Properties

DTUL 1,8 MPa	174 °C	ASTM D648	Flammability	HB	1.5mm	UL 94
				V-O	4.5 mm	UL 94

Electrical properties

Electrical resistivity	3.0E+16	Ω-cm	ASTM D257	Dissipation factor	7.0E-4	60 Hz	ASTM D150
Dielectric strength	17	kV/mm	ASTM D149		1.0E-3	1 kHz	ASTM D150
Relative permittivity	3.03	60 Hz	ASTM D150		6.0E-3	1 MHz	ASTM D150
	3.04	1 kHz	ASTM D150				
	3.02	1 MHz	ASTM D150				

Health and safety

Printing

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

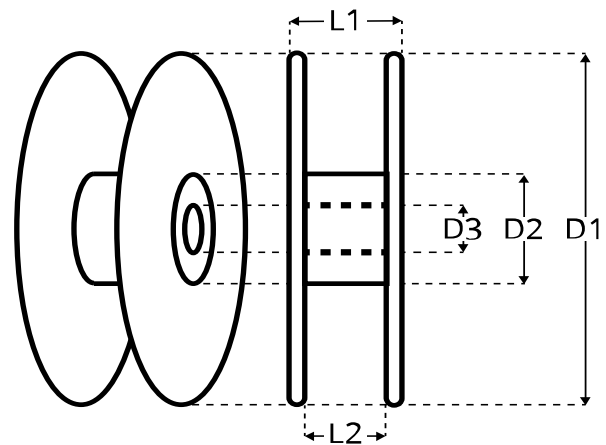
Post treatment

- Wearing standard safety equipment during the post treatment of prints made with Nanovia PSU is recommended.

Packaging

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

- Spools are equipped with both a material traceability and a production series number.
- Spools are packed in individual boxes, sous-vide with desiccant.
- Nanovia PSU is also available in pellet form for plastic extrusion and 3D FGF pellet printing.



COMPOSITE MATERIALS *for*
ADVANCED INDUSTRIALS

For additional information on this product, please visit :

www.nanovia.tech/psu

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