



COMPOSITE MATERIALS *for*
ADVANCED INDUSTRIALS

Nanovia ISTROFLEX :

Biodegradable flexible

Nanovia Istroflex is a biodegradable flexible FFF filament (Shore 44D / 93A). Composed out of cosmetic grade oyster powder sourced in France (Morbihan) combined in a biodegradable polymer matrix. Compostable according to norm EN 13432, this filament is certified without endocrine disruptors. Nanovia Istroflex is characterized by a very good build plate and inter layer adhesion.

Properties

3D Printing

Extrusion temperature	210 – 230 °C	
Plate temperature	20 – 40 °C	°C
Enclosure temperature	20 °C	°C
Nozzle (minimum)	0,4	mm
Diameter	1.75 & 2.85	mm +/- 50 µm
Colours	Cream, black	

For a better print result, a lower retraction speed is recommended.

Mechanical properties

Density	1.55	g/cm ³	ISO 1183
Tensile modulus	60	MPa	ISO 527
Elong. at break	> 300	%	ISO 527
Stress at break	11.5	MPa	ISO 527
Hardness	44	Shore D	
	93	Shore A	

Thermal properties

VICAT	91	°C	ISO 306
MFR	2,7-4,9	g/10min – 190 °C	2,16kg ISO 1133



Advantages

- Flexible
- Biodegradable and compostable
- Excellent inter layer adhesion
- Endocrine perturbatur free certified

Colours

Native / beige

Black

Application recommendations

Storage

- Store in airtight container with desiccant, out of direct sunlight.
- Dehydrate for 4h at 60°C prior to printing after prolonged exposure to humidity.

Post treatment

- It is possible to sand thick layers of Nanovia Istroflex.

Biodegradability

Nanovia Istroflex contains is a heavy polymer, based on biodegradable monomers and cosmetic grade oyster shells.

RoHS certification

- Nanovia Istroflex RoHS certification:



1 Method OEDT – SERPBIO Laboratory. Sample : NANOVIA 3D filament Istroflex.

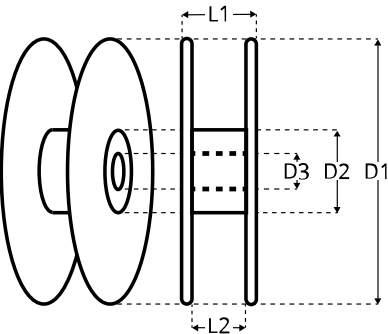
Study: Measuring the activity of the human estrogenic receptors expressed in *S. cerevisiae* (SW303.1B)

Every measurement is reproduced 3 times independently with the different contents of the tested sample

Results: The obtained data shows that the tested product does not influence the measured activity

Note on the ratio of circulating plasmic œstradiol: With menopausal women / with men: * $[4 \times 10^{-11}M - 2 \times 10^{-10}M]$ with pre menopausal women (excluding ovulation): $[1 \times 10^{-10}M - 5 \times 10^{-10}M]$ / with women (ovulation): $[2 \times 10^{-9}m]$ * a value is considered critical when it exceeds $[2 \times 10^{-11}M]$.

CONCLUSION: The tested material can be considered absent of endocrine disruptors.



Packaging

Vacuum packed spools, with desiccant, 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/istroflex