PA12 Smooth

Material's Technical Data Sheet

A cost effective nylon 12 powder with excellent surface resolution. Perfect for detailed objects and general prototypes.

Compatible with: LISA, LISA PRO, LISA X, NILS 480

FEATURES

- good quality-to-price ratio
- excellent quality print surface and details
- high chemical resistance

APPLICATIONS

- detailed printouts
- complex spatial shapes
- structural or mechanical elements
- functional prototypes or final parts
- chemically resistant objects

General information			Test method
Material type	Nylon 12		
Software	Sinterit Studio Basic		
Nitrogen needed	No		
Refresh ratio[1]	22	%	
Colour	navy grey		
Particle size	18-90	µm	ISO 13320
Mean particle size	38	µm	ISO 13320
Printout density	0.92	g/cm^3	PN-EN ISO 845:2010
Printout water absorption	8.7	%	PN-EN ISO 62:2008

1. Refresh ratio is the amount of refreshing powder that is required to be mixed after the printing with unsintered material.

Mechanical properties			Test method
Tensile Strength	32	MPa	PN-EN ISO 527- 2:2012
Elongation at Break	10	MPa	PN-EN ISO 527- 2:2012
Tensile Modulus	1470	MPa	PN-EN ISO 527- 2:2012
Flexural Strength	47	MPa	PN-EN ISO 178:2019
Flexural Modulus	1160	MPa	PN-EN ISO 178:2019
Shore hardness in type D scale	74		PN-EN ISO 868:2005
Impact strength (Charpy method - unnotched)	16	kJ/m^2	PN-EN ISO 179- 1/1eU:2010

Thermal properties			Test method
Melting point	185	°C	PN-EN ISO 11357-3:2018
Heat Deflection Temperature A at 1.8 MPa	68	°C	PN-EN ISO 75-2:2013-06 / PN-EN ISO 75-2:1998

Surface roughness

Roughness parameter	Side surface	Top surface
Ra	9.680 [µm]	6.470 [µm]
Ra	54.184 [µm]	31.633 [µm]

Roughness of test specimens surfaces printed with layer thickness of 100 [µm].

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