PA 11 Onyx

TDS for Lisa X

Material's Technical Data Sheet

Bio-derived nylon powder with great mechanical properties and impact strength. Ideal for elements working in difficult conditions.

Compatible with: LISA X

FEATURES

- high mechanical strength
- high toughness
- dimension stability
- high ductility

APPLICATIONS

- prototypes with great mechanical properties
- snap-fit designs
- end-use parts
- living hinges
- toolings
- holders

General information			Test method
Software	Sinterit Studio Advanced	-	-
Nitrogen needed	yes	-	-
Colour	black	-	internal
Refresh ratio[1]	33	%	internal
Printout density	1.03	g/cm^3	PN-EN ISO 845:2010
Printout water absorption	0.5	%	PN-EN ISO 62:2008
Particle size	28-80	µm	ISO 13320
Mean particle size	40	µm	ISO 13320

Mechanical properties			Test method
Tensile Strength (X direction)	55	MPa	PN-EN ISO 527-1:2012
Tensile Modulus (X direction)	1680	MPa	PN-EN ISO 527-1:2012
Elongation at Break (X direction)	31.6	%	PN-EN ISO 527-1:2012
Flexural Strength (X direction)	54.2	MPa	PN-EN ISO 178:2019
Flexural Modulus (X direction)	1290	MPa	PN-EN ISO 178:2019
Impact strength X (Charpy - unnotched)	179	kJ/m^2	PN-EN ISO 179-1:2010
Shore Hardness in D scale	76	-	PN-EN ISO 868:2005

Thermal properties			Test method
Melting temperature	200	°C	PN-EN ISO 11357
HDT A (X direction)	47	°C	PN-EN ISO 75-2:2013-06

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

Information provided within this document are average values for reference and comparison only. All tests were performed with print samples from Lisa PRO printed from the fresh powder. Parameters presented in this specification are subject to change without notice. Final part properties may vary based on printed part design, print orientation, and material handling. All mechanical tests were carried out on samples conditioned to ISO standards at (23 ± 2)°C and (50 ± 5)% r. h.

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