

Sinterit PA12 Smooth

Selective Laser Sintering | PA12 | powder

Compiled by FabDigit from manufacturer technical data. Values below belong to this named product; unreported properties are omitted.

Manufacturer: Sinterit

Source revision: 2024

Recorded system family: Sinterit Lisa X / NILS 480

As-printed colour: Gray. Navy gray

Test values are typical reported results, not guaranteed design allowables or finished-part certification. Review the complete source for specimen preparation, orientation and conditioning.

Mechanical

PROPERTY	VALUE	TEST / CONDITION
Tensile Strength (Ultimate)	38.44 MPa	per PN-EN ISO 527-1:2012; X 38.44 / Y 42.30
Elastic (Young's) Modulus	1.572 GPa	per PN-EN ISO 527-1:2012; X 1.572 / Y 1.662 GPa
Elongation at Break	4.55 %	per PN-EN ISO 527-1:2012; X 4.55 / Y 4.91
Flexural Strength	49.18 MPa	per PN-EN ISO 178:2019; X 49.18 / Y 50.28
Flexural Modulus	1.375 GPa	per PN-EN ISO 178:2019; X 1.375 / Y 1.506 GPa
Charpy Impact, Unnotched (ISO 179)	11.91 kJ/m²	per PN-EN ISO 179-1:2010; X 11.91 / Y 20.24
Hardness, Shore D	76 Shore D	per PN-EN ISO 868:2005

Physical

PROPERTY	VALUE	TEST / CONDITION
Melting Temperature (Tm)	185 deg C	per PN-EN ISO 11357:2018
Density	0.95 g/cm3	per PN-EN ISO 845:2010
Water Absorption (24 h)	0.36 %	per PN-EN ISO 62:2008

Thermal

PROPERTY	VALUE	TEST / CONDITION
Heat Deflection Temp. @ 1.8 MPa	50 deg C	per PN-EN ISO 75-2:2013-06; X direction

Manufacturability

PROPERTY	VALUE	TEST / CONDITION
Powder Particle Size (D50)	38 um	per ISO 13320; Mean; particle-size range 19-90 um

Selection and finishing

A fine-powder PA12 option for Sinterit systems where surface quality and standard rigid nylon behavior are desired.

Design: Use its published process-specific data for initial sizing only. Validate thin features, orientation and moisture effects on the actual Lisa X or NILS workflow.

Finishing: Navy gray is as printed; dyeing is available as a finishing path. A smooth-looking TDS name does not eliminate the need to specify surface and cosmetic acceptance.

Source and document scope

Sinterit manufacturer source reference - 2024

https://sinterit.com/wp-content/uploads/2024/03/EN_PA12_Smooth_LISAX_2024.pdf

FabDigit product page: <https://www.fabdigit.com/materials/polymer-pa12/sinterit-pa12-smooth/>

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