

PA 11 ESD

Material's Technical Data Sheet

Bio-sourced nylon material with heat resistance and ESD functionality. Dedicated for electrostatic safe parts for electronic and automotive industries.



Compatible with:

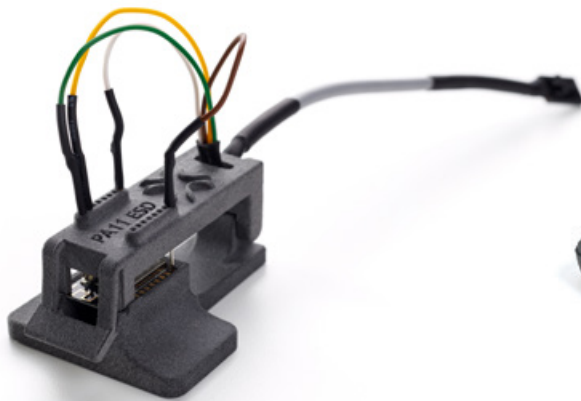


FEATURES

- antistatic properties
- better thermal properties
- dimension stability

APPLICATIONS

- tools and testers in electronics production
- electronic casing
- automotive parts
- high-accuracy parts



General information

Test method

Material type	Nylon 11		
Software	Sinterit Studio Advanced		
Nitrogen needed	Yes		
Refresh ratio ²	60	%	
Colour	grey		
Particle size	20-80	µm	ISO 13320
Mean particle size	45	µm	ISO 13320
Printout density	1.03	g/cm ³	PN-EN ISO 1183-1
Printout water absorption	0.16	%	PN-EN ISO 62:2008

1. Available on request.

2. 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/Lisa Pro printers. 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.

Mechanical properties

			Test method
Tensile Strength	46/50 ³	MPa	PN-EN ISO 527-2:2012
Elongation at Break	27/28 ³	MPa	PN-EN ISO 527-2:2012
Tensile Modulus	1850/2080 ³	MPa	PN- EN ISO 527- 2:2012
Flexural Strength	56	MPa	PN-EN ISO 178:2019
Flexural Modulus	1240	MPa	PN-EN ISO 178:2019
Shore hardness in type D scale	76		PN-EN ISO 868:2005
Impact strength (Charpy method - unnotched)	59	kJ/m ²	PN-EN ISO 179- 1/1eU:2010

Thermal properties

			Test method
Melting point	204	°C	Internal procedure
Heat Deflection Temperature A at 1.8 MPa	103	°C	PN-EN ISO 75-2:2013-06 / PN-EN ISO 75-2:1998
Heat Deflection Temperature B at 0.45 MPa	172	°C	PN-EN ISO 75-2:2013-06 / PN-EN ISO 75-2:1998

ESD properties

			Test method
Specific volume resistance	1.0×10 ⁵	Ωcm	IEC 62631-3-1
Specific surface resistance	5.3×10 ⁴	Ω	IEC 62631-3-2

3. Tested on virgin powder.

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