

# POLYPROPYLENE (PP)

## TDS for Lisa X and Lisa Pro

Material's Technical Data Sheet

Polypropylene based material with good mechanical properties. Dedicated for prototyping of PP parts, as well as functional parts utilizing chemical resistance, weldability and ductility.

Compatible with:



### FEATURES

- great chemical resistance<sup>1</sup>
- low density enabling buoyancy
- recyclability
- suitable for pneumatics
- weldability with other PP parts



### APPLICATIONS

- automotive industry (reservoirs, piping, housings)
- plastic parts producers (integrate with injection molded PP)
- laboratories (custom chemical tools, i.e. holders or vessels)
- quality, low volume production of low stress parts
- general prototyping of PP parts



**General information**

Software	Sinterit Studio Advanced	-	
Nitrogen needed	No	-	
Colour	grey	-	internal
Refresh ratio <sup>2</sup>	50	%	internal
Printout density	0.9	g/cm <sup>3</sup>	PN-EN ISO 845:2010
Bulk density	380	kg/m <sup>3</sup>	PN-EN ISO 60:2010
Printout water absorption	0.6	%	PN-EN ISO 62:2008
Particle size	30-110	µm	ISO 13320

**Mechanical properties**

Tensile Strength (X direction)	19.3	MPa	PN-EN ISO 527-1:2012
Tensile Modulus (X direction)	824	MPa	PN-EN ISO 527-1:2012
Elongation at Break (X direction)	44.4	%	PN-EN ISO 527-1:2012
Flexural Strength (X direction)	25.6	MPa	PN-EN ISO 178:2019
Flexural Modulus (X direction)	666	MPa	PN-EN ISO 178:2019
Impact strength X (Charpy - unnotched)	30	kJ/m <sup>2</sup>	PN-EN ISO 179-1:2010
Shore Hardness in D scale	50		PN-EN ISO 868:2005

**Thermal properties**

Melting temperature	135	°C	PN-EN ISO 11357
HDT A (X direction)	50	°C	PN-EN ISO 75-2:2013-06

1. Complete chemical resistance data in different media 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 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.