



# PA11 Onyx

Superior durability and resistance

High resistance against impacts Moderate elasticity  
Good chemical resistance | Dedicated only for LISA Pro



## General information

		Method
Material type	Nylon 11	
Granulation	20 - 80 [ $\mu\text{m}$ ]	
Color	Black	
Material refreshing ratio <sup>1</sup>	33 [%]	
Compatible with	Lisa Pro	

## Parameters

Tensile Strength	48 [MPa]	PN-EN ISO 527-2:2012
Flexural Strength	62 [MPa]	PN-EN ISO 178:2011
Elongation at Break	55 [%]	PN-EN ISO 37:2007
Impact resistance (Charpy test / unnotched)	179 [KJ/m <sup>2</sup> ]	PN-EN ISO 179-1/1eU:2010
Shore hardness in type D scale	76	PN-EN ISO 868:2005
Printout density	1.03 [g/cm <sup>3</sup> ]	PN-EN ISO 845:2010
Printout water absorption	0,5 [%]	PN-EN ISO 62:2008

## Thermal properties

Melting point	200 [°C]	PN-EN ISO 11357-3:2018
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## Applications

Final prototypes with great mechanical properties, snap-fit designs, end-use parts, living hinges, jigs, fixtures and tooling.

## Functions

High mechanical strength, high toughness (impact strength), dimension stability, high ductility, bio-sourced (castor oil).

<sup>1</sup> Material refreshing ratio - percent of Fresh powder which has to be mixed with Used (unsintered) powder - to be reused during next print.

Information provided within this document are average values for reference and comparison only. Parameters presented in this specification are subject to change. Final part properties may vary based on printed part design and print orientation.