Flexa Black

TDS for Lisa X

Material's Technical Data Sheet

General purpose elastic TPU material for prototyping. Reasonable elongation with ease of use.

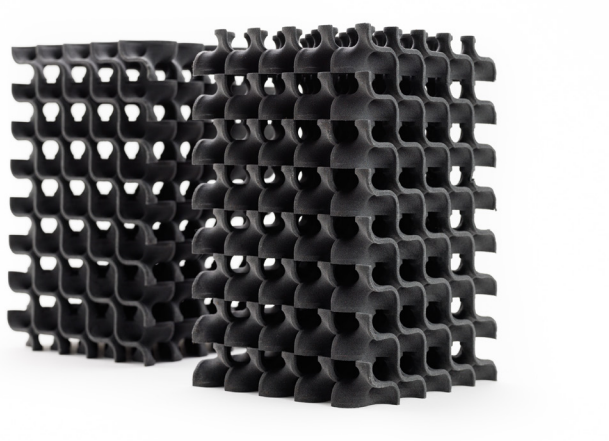
Compatible with: LISA, LISA PRO, LISA X

FEATURES

- flexible prints with increased extensibility
- adjustable hardness
- 100% reusable

APPLICATIONS

- standard rubber items
- prototypes and design
- shock and vibration absorbers
- protectors



General properties			Test method
Material type	TPU		
Nitrogen needed	No	-	
Colour	Black	-	internal
Refresh ratio[1]	0[2]	%	internal
Printout density	1.17-1.19	g/cm^3	PN-EN ISO 845:2010
Printout water absorption	0.36-0.51	%	PN-EN ISO 62:2008
Mean particle size	50	µm	ISO 13320
Bulk density	457	kg/m^3	PN-EN ISO 60:2010

Mechanical properties			Test method
Tensile Strenght (X direction)	10.82	MPa	PN-EN ISO 527-1:2012
Tensile Strenght (Y direction)	11.49	MPa	PN-EN ISO 527-1:2012
Elongation at Break (X direction)	219.63	%	PN-EN ISO 527-1:2012
Elongation at Break (Y direction)	221.15	%	PN-EN ISO 527-1:2012
Shore Hardness in A scale	90	-	PN-EN ISO 868:2005

Thermal properties			Test method
Melting temperature	160	°C	PN-EN ISO 11357:2018
Softening point (Vicat A50)	86	°C	PN-EN ISO 306:2014-02

1. Refresh ratio is the amount of refreshing powder that is required to be mixed after the printing with unsintered material.
2. Flexa Black has 100 [%] of usability. Although to keep the parameters of printouts as high as possible, we recommend adding 10% of fresh powder each time.

Information provided within this document are average values for reference and comparison only. All tests were performed with print samples from Lisa X 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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