Flexa Performance

TDS for Lisa X

Material's Technical Data Sheet

TPU with high strength and flexibility, ideal for use in gaskets, flexible joint covers, vibration dampers and others where the strength of the flexible material is significant.

Compatible with: LISA X

FEATURES

- very good tear resistance
- excellent mechanical properties
- resistant to repeated bending
- chemical resistance

APPLICATIONS

- shoe soles and insoles
- elements of flexible covers
- production tools
- grippers

General properties			Test method
Material type	TPU		
Nitrogen needed	No	-	
Colour	Light grey	-	internal
Refresh ratio[1]	20[2]	%	internal
Printout density	1.05-1.11	g/cm^3	PN-EN ISO 845:2010
Printout water absorption	0.87-1.66	%	PN-EN ISO 62:2008
Mean particle size	70-90	µm	ISO 13320
Bulk density	500	kg/m^3	PN-EN ISO 60:2010

PRINT FARM XL

Mechanical properties			Test method
Tensile Strenght (X direction)	7.99	MPa	PN-EN ISO 527-1:2012
Tensile Strenght (Y direction)	7.98	MPa	PN-EN ISO 527-1:2012
Elongation at Break (X direction)	182.63	%	PN-EN ISO 527-1:2012
Elongation at Break (Y direction)	173.53	%	PN-EN ISO 527-1:2012
Shore Hardness in A scale	88	-	PN-EN ISO 868:2005

Thermal properties			Test method
Melting temperature	120-150	°C	PN-EN ISO 11357:2018
Softening point (Vicat A50)	96	°C	PN-EN ISO 306:2014-02

PRINT FARM XL

1. Refresh ratio is the amount of refreshing powder that is required to be mixed after the printing with unsintered material.
2. Flexa Performance has 100 [%] of usability. Although to keep the parameters of printouts as high as possible, we recommend adding 20[%] 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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