

# TECHNICAL DATA SHEET

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Z-FLEX is a thermoplastic polyester elastomer that can be 3D printed with at a relatively fast rate of 45mm/s. The filament has great interlayer adhesion and dimensional tolerance falling below +/- 0,02 mm. Z-FLEX is elastic, can bend without breaking, and is resistant to various chemicals including gasoline, ethyl alcohol, butane, and carbon monoxide.

Compared to Z-SEMIFLEX, this filament is a little more elastic. Besides being able to withstand temperatures as high as 70° C, it can maintain its integrity in low temperatures reaching -40° C. Z-FLEX is perfect for 3D printing parts intended to be bent frequently like tires, elastic hinges, or gaskets.

Mechanical Properties	Metric	Imperial	Test Method
Tensile Strength	9.94 MPa	1440 psi	ISO 527:1998
Breaking Stress	9.07 MPa	1320 psi	ISO 527:1998
Elongation at max Tensile Stress	3120.74%	3120.74%	ISO 527:1998
Elongation at Break	3319.12%	3319.12%	ISO 527:1998
Bending Stress	3.60 MPa	522 psi	ISO 178:2011
Flexural Modulus	53.86 MPa	7810 psi	ISO 178:2011
Izod Impact, Notched*	14.61 kJ/m <sup>2</sup>	6.95 ft-lb/in <sup>2</sup>	ISO 180:2004
Thermal Properties	Metric	Imperial	Test Method
Melting Point	174.25° C	346° F	ISO 11357-3:2014
Other Properties	Metric	Imperial	Test Method
Melt Flow Rate	27.98 g/10 min Load 2.16 kg Temperature 225° C	0.0617 lb/10 min Load 4.76 lb Temperature 437° F	ISO 1133:2006
Specific Density	1.186 g/cm <sup>3</sup>	9.90 lb/gal	ISO 1183-3:2003
Shore Hardness (D)	31	31	ISO 868:1998

\* - Break type: no break

Compatible with	Available Colors
ZORTRAX M200 Plus	 black
ZORTRAX M300 Plus	

The data presented in this document are intended for information and comparison purposes only. They should not be used for project specifications or its quality evaluation. The material's actual properties depend on the printing process conditions, the design structure and its purpose, test conditions, etc.

Samples of Z-FLEX used to carry out the tests were built on Zortrax M200 Plus.

Product specifications are subject to change without notice.

Each user is responsible for complying with product safety standards, its intended use as well as the law and waste disposal (and recycling) rules for electrical and electronic equipment. Zortrax does not make any express or implied warranties, including but not limited to implied warranties of merchantability or fitness for a particular purpose.

The Zortrax logo consists of the word "zortrax" in a bold, lowercase, sans-serif font. The letter "z" is significantly larger and more prominent than the other letters.

**Zortrax S.A.**  
Lubelska 34,  
10-409 Olsztyn, Poland  
NIP: 7393864289  
REGON: 281551179

**Contact**  
Office: [office@zortrax.com](mailto:office@zortrax.com)  
Sales Department: [sales@zortrax.com](mailto:sales@zortrax.com)  
Support Center: [support@zortrax.com](mailto:support@zortrax.com)