

# TECHNICAL DATA SHEET

Date of issue: 08.11.2018 | Update: 05.09.2019 | Version: 2.10

**Z-FLEX**

**Z-FLEX** is a material with unique properties that will allow you to successfully print objects with a rubber-like texture. This material exhibits high impact and abrasion resistance, but it also offers resistance to chemical substances, such as gasoline, ethyl alcohol, butane, and carbon monoxide. In addition, Z-FLEX has strong adhesion between individual layers which gives your models enhanced durability. These qualities make Z-FLEX perfect for creating elastic parts, including hinges, gaskets or prototypes of tires, which will undergo frequent bending and will be tested in industrial environments. Z-FLEX is available in black.



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

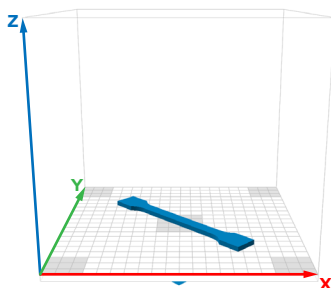
\* - Break type: no break

Compatible with	Layer Thickness Range		Available Colors
ZORTRAX M200 Plus	0.19 mm	0.0075 in	● black
ZORTRAX M300 Plus	0.24 mm	0.0114 in	

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.  
The general print parameters utilized are noted below:

Z-SUITE: v2.7.2  
 Layer thickness: 0.19 mm;  
 Quality: High;  
 Seam: Normal;  
 Infill: Solid,  
 Fan Speed: Auto;  
 Surface Layers:  
 - Top: 7 (default);  
 - Bottom: 4 (default);



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.

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