

TECHNICAL DATA SHEET

Date of issue: 08.11.2018 | Update: 05.03.2020 | Version: 2.00



Z-NYLON is a versatile and strong 3D printing filament resistant to high temperatures and various chemicals. It can be post-processed with tools meant for machining metals. Z-NYLON is hard to break and easy to paint as it can be colored with commonly used, acid-based clothing dyes.

The filament quickly absorbs moisture and should be stored in a water-proof bag with a moisture absorber. As all nylon-based materials, Z-NYLON has a relatively high shrinkage so it is not advisable to use it for 3D printing large geometric shapes with steep slopes. To reduce the shrinkage, it is recommended to work with HEPA Cover attached on the M Series Plus 3D printers.

Mechanical Properties	Metric	Imperial	Test Method
Tensile Strength	33.22 MPa	4820 psi	ISO 527:1998
Breaking Stress	29.81 MPa	4320 psi	ISO 527:1998
Elongation at max Tensile Stress	9.17%	9.17%	ISO 527:1998
Elongation at Break	23.62%	23.62%	ISO 527:1998
Bending Stress	38.30 MPa	5550 psi	ISO 178:2011
Flexural Modulus	781.01 MPa	113 ksi	ISO 178:2011
Izod Impact, Notched	12.81 kJ/m ²	6.10 ft-lb/in ²	ISO 180:2004
Thermal Properties	Metric	Imperial	Test Method
Melting Point	172.81° C	343° F	ISO 11357-3:2014
Other Properties	Metric	Imperial	Test Method
Melt Flow Rate	9.23 g/10 min Load 5.00 kg Temperature 235° C	0.0204 lb/10 min Load 11.00 lb Temperature 455° F	ISO 1133:2006
Specific Density	1.027 g/cm ³	8.57 lb/gal	ISO 1183-3:2003
Shore Hardness (D)	62	62	ISO 868:1998

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-NYLON 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 is displayed in a bold, lowercase, sans-serif font.

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