

TECHNICAL DATA SHEET

Date of issue: 08.11.2018 | Update: - | Version: 1.00



Z-PHA is a polyhydroxyalkanoate bioplastic 3D printing filament. It's one of the most eco-friendly filaments available on the market as it is easily biodegradable and produced by bacteria kept under certain conditions. Z-PHA has lower shrinkage than PLA-based materials, so it is perfect for 3D printing large, yet dimensionally accurate models, such as architectural mock-ups.

The filament is more durable and stronger than PLA so it is recommended whenever better mechanical properties are needed apart from immense precision. Z-PHA is not recommended for high-temperature environments. Exposure to chemicals should also be avoided.

Mechanical Properties	Metric	Imperial	Test Method
Tensile Strength	38.88 MPa	5640 psi	ISO 527:1998
Breaking Stress	38.27 MPa	5550 psi	ISO 527:1998
Elongation at max Tensile Stress	3.47%	3.47%	ISO 527:1998
Elongation at Break	3.61%	3.61%	ISO 527:1998
Bending Stress	70.30 MPa	10200 psi	ISO 178:2011
Flexural Modulus	2.79 GPa	405 ksi	ISO 178:2011
Izod Impact, Notched	4.46 kJ/m ²	2.12 ft-lb/in ²	ISO 180:2004
Thermal Properties	Metric	Imperial	Test Method
Glass Transition Temperature	62.58° C	145° F	ISO 11357-3:2014
Other Properties	Metric	Imperial	Test Method
Melt Flow Rate	23.98 g/10 min Load 2.16 kg Temperature 190° C	0.0529 lb/10 min Load 4.76 lb Temperature 374° F	ISO 1133:2006
Specific Density	1.326 g/cm ³	11.1 lb/gal	ISO 1183-3:2003
Shore Hardness (D)	69	69	ISO 868:1998

Compatible with	Available Colors				
ZORTRAX M200 Plus					
ZORTRAX M300 Plus	black	natural	grey	blue	red
	green	yellow			

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-PHA 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.

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

Contact
Office: office@zortrax.com
Sales Department: sales@zortrax.com
Support Center: support@zortrax.com