# TECHNICAL DATA SHEET

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Z-ULTRAT

## Durability Comes in Colors

**Z-ULTRAT** is a material characterized by high impact resistance, which gives your models a uniform surface texture. This all-purpose material allows you to 3D print elements requiring durability, such as end-use parts, which, after continued use, keep their initial shape over time. With Z-ULTRAT, you can produce objects with properties comparable to those of models manufactured using injection molding technology, including functional prototypes, test casings, and mechanical parts. Z-ULTRAT allows you to test your tailor-made projects in unlimited ways, in one of twenty-two shades.

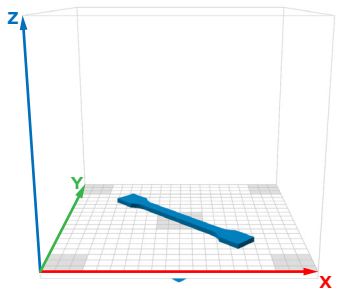

| Mechanical Properties | Metric | Imperial | Test Method |
|---|---|---|---|
| Tensile Strength | 32.60 MPa | 4730 psi | ISO 527:1998 |
| Breaking Stress | 30.70 MPa | 4450 psi | ISO 527:1998 |
| Elongation at max Tensile Stress | 3.78% | 3.78% | ISO 527:1998 |
| Elongation at Break | 4.87% | 4.87% | ISO 527:1998 |
| Bending Stress | 54.00 MPa | 7830 psi | ISO 178:2011 |
| Flexural Modulus | 1.85 GPa | 268 ksi | ISO 178:2011 |
| Izod Impact, Notched | 5.26 kJ/m$^2$ | 2.50 ft-lb/in$^2$ | ISO 180:2004 |
| **Thermal Properties** | **Metric** | **Imperial** | **Test Method** |
| Glass Transition Temperature | 106.40° C | 224° F | ISO 11357-3:2014 |
| **Other Properties** | **Metric** | **Imperial** | **Test Method** |
| Melt Flow Rate | 43.88 g/10 min<br>Load 5 kg<br>Temperature 260° C | 0.0968 lb/10 min<br>Load 11 lb<br>Temperature 500° F | ISO 1133:2006 |
| Specific Density | 1.179 g/cm$^3$ | 9.84 lb/gal | ISO 1183-3:2003 |
| Shore Hardness (D) | 73.4 | 73.4 | ISO 868:1998 |

| Compatible with | Layer Thickness Range | | Available Colors |
|---|---|---|---|
| ZORTRAX M200<br>ZORTRAX M200 Plus | 0.09 mm | 0.0035 in | blue, yellow, green, cool grey, ivory, pure black |
| | 0.14 mm | 0.0055 in | |
| | 0.19 mm | 0.0075 in | red, nude, magenta, olive, brown |
| | 0.29 mm | 0.0114 in | neon blue, neon green, neon yellow, neon orange, neon red, neon pink |
| | | | pastel yellow, pastel pink, pastel purple, pastel blue, pastel turquoise |

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-ULTRAT used to carry out the tests were built on Zortrax M200.
The general print parameters utilized are noted below:

Z-SUITE: v2.2.0.0
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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