## TECHNICAL DATA SHEET Date of issue: 12.12.2014 | Update: 22.06.2021 | Version: 4.00

## Z-GLASS

## See What's Within

**Z-GLASS** is a material with unparalleled properties that will allow you to successfully replace brittle glass elements in your functional prototypes and show what is within them. Its low shrinkage level makes it possible to 3D print defect-free models which will be durable and scratchproof, including automotive and electronics objects. With Z-GLASS, you can create light-transmitting objects that will remain unaffected by heavy exposure to light (high UV resistance) or most acids and alcohols, and weak alkalies. All these advantages make this material ideal not only for industrial sector but also for creating interior design elements.



| Mechanical Properties            | Metric   | Imperial  | Test Method      |
|----------------------------------|--|---|------------------|
| Tensile Strength                 | 39.57 MPa  | 5740 psi  | ISO 527:1998     |
| Breaking Stress                  | 34.61 MPa  | 5020 psi  | ISO 527:1998     |
| Elongation at max Tensile Stress | 5.94%  | 5.94%   | ISO 527:1998     |
| Elongation at Break              | 6.74%  | 6.74%   | ISO 527:1998     |
| Bending Stress                   | 55.40 MPa  | 8040 psi  | ISO 178:2011     |
| Flexural Modulus                 | 1.17 GPa   | 170 ksi   | ISO 178:2011     |
| Izod Impact, Notched             | 2.88 kJ/m <sup>2</sup>                               | 1.37 ft-lb/in <sup>2</sup>                            | ISO 180:2004     |
| Thermal Properties               | Metric   | Imperial  | Test Method      |
| Glass Transition Temperature     | 78.06° C   | 173° F  | ISO 11357-3:2014 |
| Other Properties                 | Metric   | Imperial  | Test Method      |
| Melt Flow Rate                   | 199.5 g/10 min<br>Load 2.16 kg<br>Temperature 280° C | 0.440 lb/10 min<br>Load 4.76 lb<br>Temperature 536° F | ISO 1133:2006    |
| Specific Density                 | 1.409 g/cm <sup>3</sup>                              | 11.8 lb/gal   | ISO 1183-3:2003  |
| Shore Hardness (D)               | 72.2   | 72.2  | ISO 868:1998     |

## TECHNICAL DATA SHEET

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-GLASS 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);

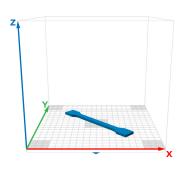
Product specifications are subject to change without notice.

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**Zortrax S.A.** Lubelska 43a 10-410 Olsztyn, Poland NIP: 5242756595 REGON: 146496404 Contact Office: office@zortrax.com Sales Department: sales@zortrax.com Support Center: support@zortrax.com

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