

# Ceramic

Ceramic Resin for Experimentation and Prototyping \$149 / L

Parts 3D printed in silica-filled Ceramic Resin can be fired to create a fully ceramic piece. This experimental Form X material requires more trial and error than other Formlabs products. Please read the usage guide prior to printing.

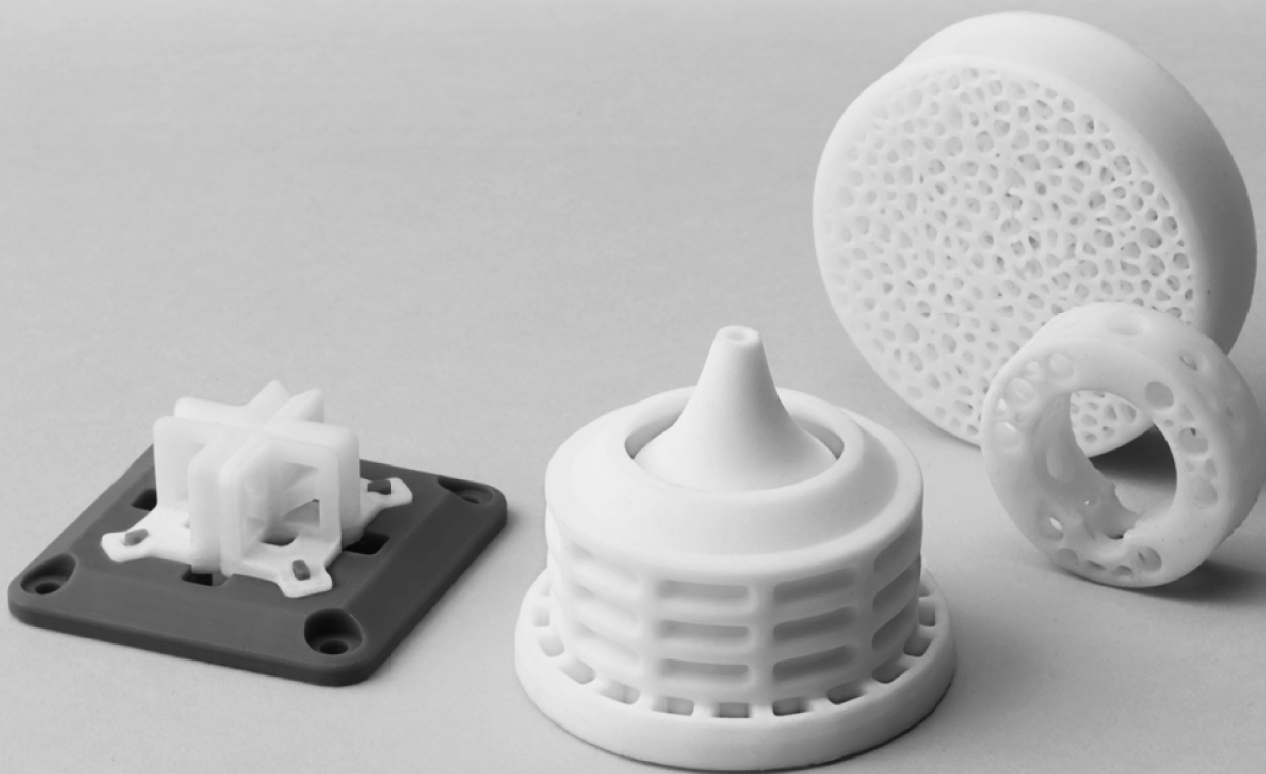
Supports print resolutions: 100 and 50 microns. **This resin is not compatible with Resin Tank LT.**

Technical Experimentation

Fine Art & Sculpture

Research and Development

Jewelry



FLCEWH01

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To the best of our knowledge the information contained herein is accurate. However, Formlabs, Inc. makes no warranty, expressed or implied, regarding the accuracy of these results to be obtained from the use thereof.

# Material Properties Data

GREEN <sup>1</sup>	METRIC <sup>2</sup>	IMPERIAL <sup>2</sup>	METHOD
<b>Tensile Properties</b>			
Ultimate Tensile Strength	5.1 MPa	740 psi	ASTM D638-14
Tensile Modulus	1.03 GPa	149 ksi	ASTM D638-14
Elongation	1.4 %	1.4 %	ASTM D638-14
<b>Flexural Properties</b>			
Flexural Stress at Break	10.27 MPa	1489 psi	ASTM D790-15e2
Flexural Modulus	994.6 MPa	144 ksi	ASTM D790-15e2
<b>Impact Properties</b>			
Notched IZOD	18.42 J/m	0.35 ft-lb/in	ASTM D256-10e1
<b>Thermal Properties</b>			
Heat Deflection Temp. @ 164 psi	74.7 °C	155.5 °F	ASTM D648-16, Method B
Heat Deflection Temp. @ 66 psi	> 290 °C	> 554 °F	ASTM D648-16, Method B

FIRED <sup>3</sup>	METRIC <sup>2</sup>	IMPERIAL <sup>2</sup>	METHOD
<b>Tensile Properties</b>			
Tensile Modulus	50.0 GPa	7252 ksi	ASTM E494
<b>Flexural Properties</b>			
Flexural Stress at Break	33.5 MPa	4895 psi	ASTM C1161
<b>Other Properties</b>			
Cold Crushing Strength	72.2 MPa	10.4 ksi	ASTM C733
Shear Modulus	21.9 GPa	3176 ksi	ASTM E494
Poisson's Ration	0.140	0.140	ASTM E494
Density	1.9 g/cm <sup>3</sup>	119 lb/ft <sup>3</sup>	ASTM E494

<sup>1</sup>Data was obtained from green parts, printed using Form 2, 100 µm, Ceramic settings, without additional treatments.

<sup>2</sup>Material properties can vary with part geometry, print orientation, print settings and temperature.

<sup>3</sup>Data was obtained from fired parts, printed using Form 2, 100 µm, Ceramic settings, which were washed and dried without additional post-cure. Parts had been printed with a pre-applied scale factor and fired using an 30 hr schedule to a maximum firing temperature of 1275 °C as laid out in the Formlabs usage guide.