

# Dental Model

## Dental Model for High-Precision, High-Accuracy

Designed for crown and bridge models with removable dies, Dental Model Resin is a high-precision, high-accuracy resin. Print crisp margins and contacts within +/- 35 microns, and removable dies with consistently tight fit. A smooth, matte surface finish and color similar to gypsum make it easy to switch from analog to digital model production.



FLDMBE02

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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

	METRIC <sup>1</sup>		IMPERIAL <sup>1</sup>		METHOD
	Green <sup>2</sup>	Post-Cured <sup>3</sup>	Green <sup>2</sup>	Post-Cured <sup>3</sup>	
<b>Mechanical Properties</b>					
Tensile Strength at Yield	33 MPa	61 MPa	4800 psi	8820 psi	ASTM D 638-14
Tensile Modulus	1.6 GPa	2.7 GPa	230 ksi	397 ksi	ASTM D 638-14
Elongation at Failure	25 %	5 %	25 %	5 %	ASTM D 638-14
<b>Flexural Properties</b>					
Flexural Modulus	0.95 GPa	2.5 GPa	138 ksi	365 ksi	ASTM D 790-15
Flexural Strength at 5% Strain	33.9 MPa	95.8 MPa	4910 psi	13900 psi	ASTM D 790-15
<b>Impact Properties</b>					
Notched IZOD	27 J/m	33 J/m	0.5 ft-lbf/in	0.6 ft-lbf/in	ASTM D256-10
<b>Thermal Properties</b>					
Heat Deflection Temp. @ 264 psi	32.8 °C	45.9 °C	91.1 °F	114.6 °F	ASTM D 648-16
Heat Deflection Temp. @ 66 psi	40.4 °C	48.5 °C	104.7 °F	119.3 °F	ASTM D 648-16

<sup>1</sup>Material properties can vary with part geometry, print orientation, print settings, and temperature.

<sup>2</sup>Data was obtained from green parts, printed using Form 2, 100 µm, Dental Model settings, washed and air dried without post cure.

<sup>3</sup>Data was obtained from parts printed using Form 2, 100 µm, Dental Model settings, and post-cured with 1.25 mW/cm<sup>2</sup> of 405 nm LED light for 60 minutes.

## Solvent Compatibility

### G = Good resistance.

Parts exposed to this solvent should not experience a decrease in mechanical properties. (≤ 1% weight gain, ≤ 1% width increase over 24 hours for a 1 x 1 x 1 cm cube)

### X = Unacceptable resistance.

Parts exposed to this solvent will experience a significant decrease in mechanical properties as well as visible degradation. (> 2% weight gain, > 2% width increase over 24 hours for a 1 x 1 x 1 cm cube)

Solvent	Green	Post-Cured	Solvent	Green	Post-Cured
Acetic Acid, 5 %	G	G	Isooctane	G	G
Acetone	X	X	Isopropyl Alcohol	X	G
Bleach, ~5 % NaOCl	G	G	Sodium hydroxide (0.025 %, pH = 10)	G	G
Butyl Acetate	X	G	Salt Water (3.5 % NaCl)	G	G
Diethyl glycol monomethyl ether	X	G	Water	G	G
Hydrogen Peroxide (3 %)	G	G	Xylene	X	G