



# Clear

Photopolymer Resin for Form 1+

## **MATERIAL PROPERTIES**

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Formlabs Clear Resin produces strong plastic parts ideal for a wide variety of applications and is specifically designed to work with your Form 1+ 3D Printer. This material can be easily painted, and when the surface is finished or coated, produces a highly clear part. Upon post-cure, tensile strength and stiffness exceeds that of injection-molded or 3D-printed ABS.

	METRIC <sup>1</sup>		IMPERIAL <sup>1</sup>		METHOD
	Green <sup>2</sup>	Postcured <sup>3</sup>	Green <sup>2</sup>	Postcured <sup>3</sup>	
<b>Tensile Properties</b>					
Tensile Strength at yield	29.8 <sup>2</sup> MPa	61.5 <sup>3</sup> MPa	4320 psi	8920 psi	ASTM D 638-10
Young's Modulus	1.3 GPa	2.7 GPa	191 ksi	392 ksi	ASTM D 638-10
Elongation at Failure	20%	5%	20%	5%	ASTM D 638-10
<b>Flexural Properties</b>					
Flexural Modulus	0.97 GPa	2.38 GPa	140 ksi	345 ksi	ASTM D 790-10(A)
<b>Impact Properties</b>					
Notched IZOD	22 J/m	29 J/m	0.406 ft-lbf/in	0.537 ft-lbf/in	ASTM D 256-10
<b>Temperature Properties</b>					
Heat deflection temp. @ 66 psi	52 °C	78 °C	126 °F	172 °F	ASTM D 648-07
Heat deflection temp. @ 200 psi	47 °C	60 °C	117 °F	140 °F	ASTM D 648-07
5% Wt loss temperature	247 °C	274 °C	477 °F	525 °F	ASTM E 1131

**NOTES:**

<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 50 µm Clear settings, without additional treatments.

<sup>3</sup>Data refers to post-cured properties obtained after exposing green parts to 15 J/cm<sup>2</sup> of UV light.