

# LOCTITE® 3D Printing General Purpose 3830

## Product Specifications

- Light curable acrylic resin
- Cures with very short exposure to monochromatic light sources such as LED or Laser

Technology	Stereolithography Resin
Appearance	Available in Clear, White, Grey, Black
Chemistry Type	Acrylic
Odor	Mild
Cure	Ultraviolet / Visible Light
Viscosity	Low
Flow Characteristic	Self-leveling, Newtonian fluid
Application	Prototyping
Specific Benefits	<ul style="list-style-type: none"> <li>• Rigid general purpose</li> <li>• Low shrinkage</li> <li>• Fine print resolution</li> <li>• Short exposure time</li> </ul>



## Application Areas

- Suitable for prototyping parts that require a fine print resolution

## Advantages

- Requires a very short exposure time
- Provides a very fine print resolution ideal for parts that require fine features
- Low shrinkage upon curing, maintaining part dimensions from conception to production
- Excellent compatibility with PDMS window

## Properties of uncured material

- **Appearance:** Available in Clear, White, Grey and Black
- **Viscosity (mPas):** 100-450 (Cone & Plate, mPa\*s (cP); Temperature: 25°, Shear Rate: 200 s-1)

## Properties of printed parts

Test	Method	Results
IZOD Notched Impact	ASTM D256	13-17 J/m
Tensile Strength	ASTM D638	40-55 MPa
HDT (@ 0.45 MPa)	ASTM D648	60-70 °C
Tensile Modulus	ASTM D638	1900-2400 MPa

Samples prepared at 0.050 mm layer thickness on LOCTITE® PR10.1 DLP printer using recommended exposure settings. Samples post cured for 100 s per side at 50 mW/cm<sup>2</sup> @ 405 nm wavelength using LOCTITE® 405 nm Flood System. All data is recorded on specimens printed in the xy-plane. Some variation is expected when printing in z-plane. If desired by the end user, the hardness of the printed part can be improved by additional exposure to 405 nm light source. Contact your local LOCTITE® Technical Service team for further information.