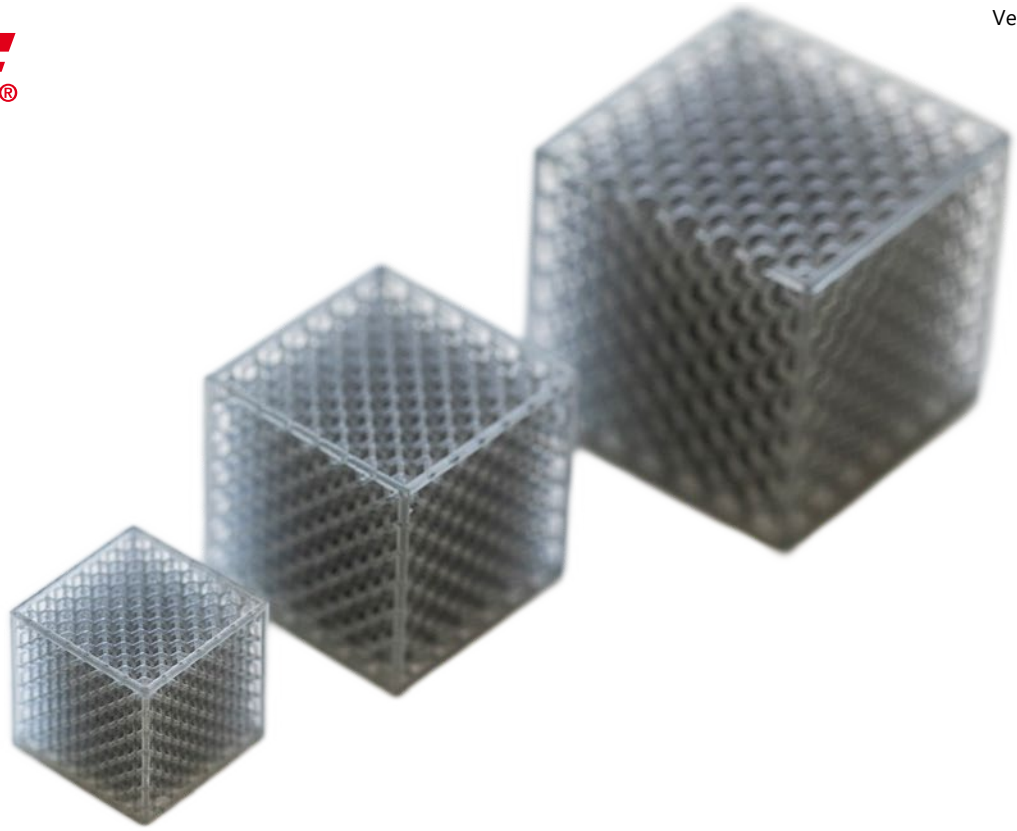


LOCTITE®



LOCTITE® 3D 8195™

A60 High Rebound
Photoelastic
Gray

LOCTITE®

Henkel Corporation

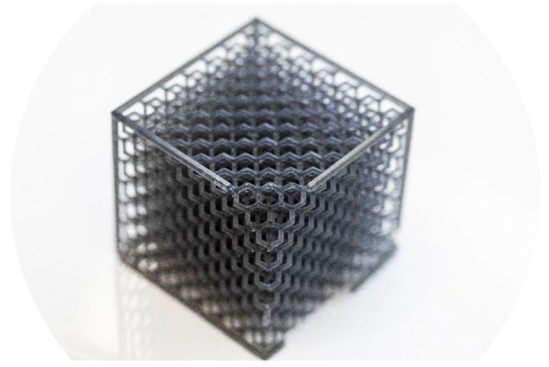
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LOCTITE 3D 8195™

LOCTITE 3D 8195 is a one-part elastomeric material formulated to have firm compression properties with quick rebound performance to match soft rubber like materials.

Flexibility, good energy return and fast to print make this material ideal for prototyping applications. It delivers excellent surface finish across various DLP printer platforms.



Benefits:

- Excellent surface finish
- Fast printing
- Energy return



Ideal for:

- Gaskets
- Seal prototyping



Markets:



Industry



Healthcare



Consumer Goods

Tensile Stress at Break (MPa)

2

Strain at Break (%)

70

Shore Hardness (5s)

58

Energy Return (%)

78

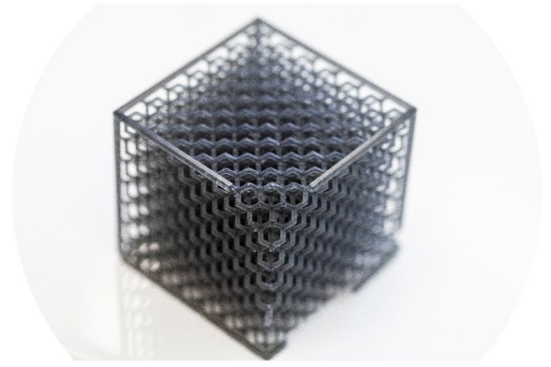
**Values shown are linked to LOCTITE 8195 Grey as reference, please refer to the specific mechanical properties*



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MECHANICAL PROPERTIES

Mechanical Properties	Measure	Method	Green	Post Processed
Tensile Stress at Break	MPa	ASTM D638	-	1.5-1.8 ^[1]
Young's Modulus	MPa	ASTM D638	-	3-4.5 ^[1]
Elongation at Break	%	ASTM D638	-	60-65 ^[1]
Stress at 20% Strain	MPa	ASTM D412	-	0.6-0.8 ^[1]
Stress at 40% Strain	MPa	ASTM D412	-	1.2-1.4 ^[1]
Stress at 60% Strain	MPa	ASTM D412	-	1.9-2.1 ^[1]
Strain at Break	%	ASTM D412	-	65-70 ^[1]
Stress at Break	MPa	ASTM D412	-	2-2.2 ^[1]
Tear Strength	kN/m	ASTM D624	-	4.3-4.6 ^[1]
Other Properties				
Energy Return	%	Internal Method	-	74-78 ^[2]
Water Absorption (24hr)	%	ASTM D570	-	1 ^[3]
Shore Hardness (5s)	A	ASTM D648	-	58 ^[4]
Solid Density	g/cm ³	ASTM D1475	-	1.12 ^[5]
Liquid Properties		Measure	Method	Value
Viscosity at 25°C	cP	ASTM D7867	-	1250 ^[6]
Liquid Density	g/cm ³	Internal	-	1.07 ^[5]

"All specimen are printed unless otherwise noted. All specimen were conditioned in ambient lab conditions at 19-23C / 40-60% RH for at least 24 hours." ASTM Methods: D638 Type IV, 50mm/min, D624, Die C Shape, 500 mm/min (Elastomeric Materials), D2240, Type "A" (0, 3 seconds), D790-B, 2mm/min, D570 0.125" x 2" Disc 24hr@ 25°C, D1475, D7867

Internal Data Sources:

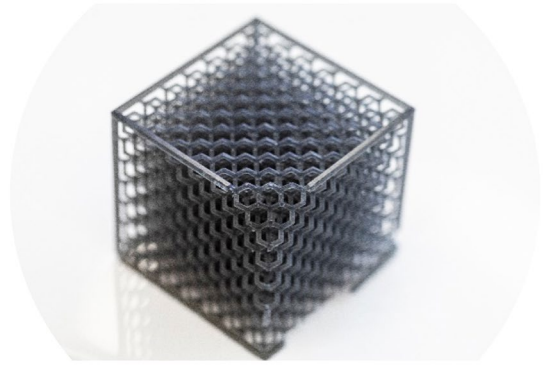
[1] GEN 1170 [2] FOR16947 [3] FOR17053 [4] FOR17055 [5] FOR16971 [6] FOR57678





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WORKFLOW

Validated workflows need to be followed to achieve properties as provided in the TDS. Examples of validated workflow steps are listed below. Users should defer to the most current workflow information for best results which can be found at <https://www.loctiteam.com/printer-validation-settings>

PRINTER SETTINGS

LOCTITE 3D 8195 is formulated to print optimally on industrial DLP printer. Read the safety data sheet carefully to get details about health and safety instructions. Recommended print parameters:

- Shake resin bottle well before usage
- Temperature: 20°C to 35°C
- Intensity: 2 mW/cm² to 10 mW/cm²

Exposure time for an intensity of 2 mW/cm²

			Gray	Red
Layer Thickness (µm):	50	100	Ec (mJ/cm ²)	6.1 6.6
First layer time (s)	25	50	Dp (mm):	0.20 0.09
Burn in region (s):	5	15		
Model Layer Exposure (s):		9.5		

POST PROCESSING

LOCTITE 3D 8195 requires post processing to achieve specified properties. Prior to post curing, support structures should be removed from the printed part, and the part should then be washed. Use compressed air to remove residual solvent from the surface of the material between intervals.

Post Process Step	Agent	Method	Duration	Intervals	Additional Info
Cleaning	IPA	Manual	2 min	1	
Dry	n.a.	Compressed air	10 to 60 s	1	Air pressure (30psi)
Wait before post curing	n.a.	Ambient condition	60 min	1	Room temperature

POST CURING

LOCTITE 3D 8195 requires post curing to achieve specified properties. It is recommended that either an LED or wide spectrum lamp be used to post cure parts.

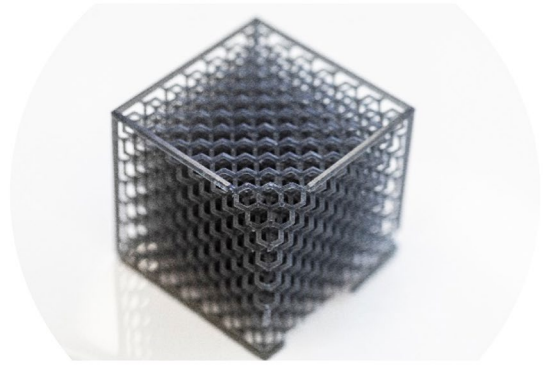
UC Curing Unit	UV Source	Intensity	Cure time/ side	Additional Settings (Shelf, Output Energy)
Loctite UVALOC 1000	Mercury Vapor (H- bulb)	30 mW/cm ²	10 min	Shelf 1 (from bottom)



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ADDITIONAL DEVELOPMENT OPTIONS

Colors: LOCTITE 3D 8195 formula is made with only one color.

LIMITATIONS

Vat Printer: LOCTITE 3D 8195 formula shows limited path forward for Vat printers.

LCD printers: LOCTITE 3D 8195 formula may be compatible with LCD Printers using long exposure times.

STORAGE

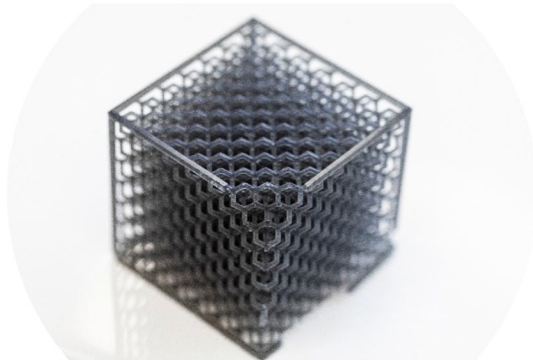
Store LOCTITE 3D 8195 in the unopened container in a dry location. Optimal storage: 8°C to 30°C, storage below 8°C or greater than 30°C can adversely affect products properties. More specific information is given in the Safety Data Sheet. Material removed from container may be contaminated during use. For this reason, filter used resin with 190µm mesh filter before placing back into proper storage container.



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NOTE

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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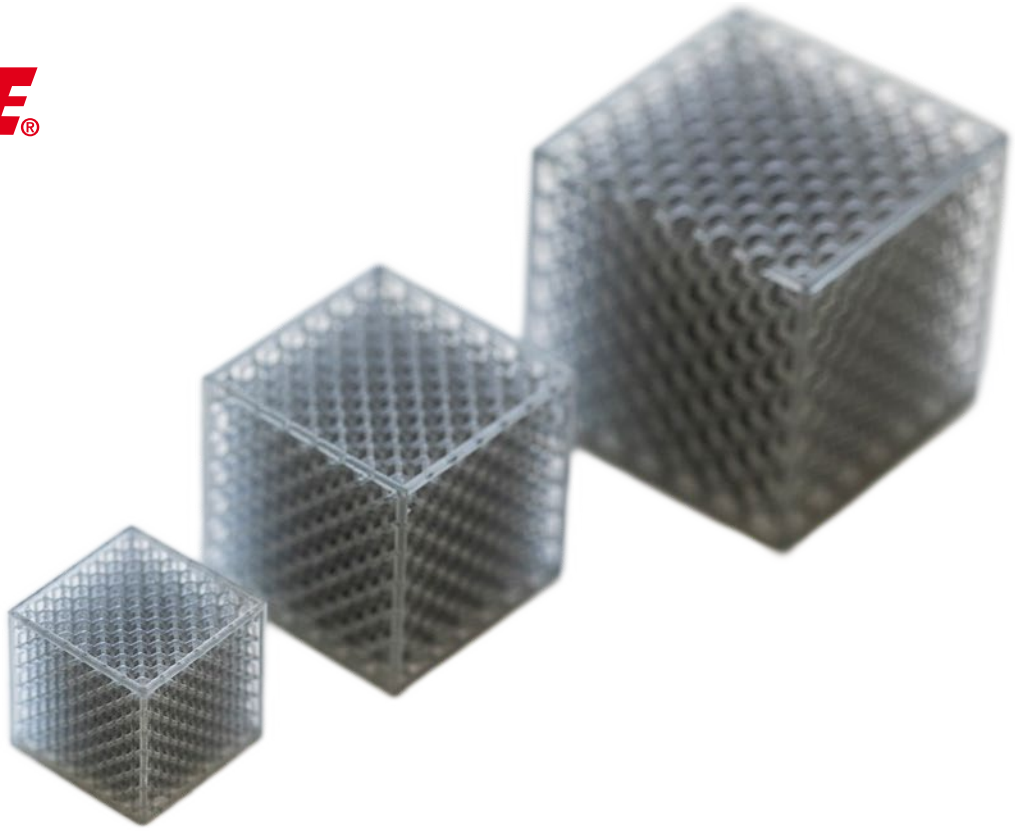
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