LOCTITE®

LOCTITE® 3D PRO9317™

General Purpose Clear

LOCTITE®
Henkel Corporation
loctite3d@henkel.com

Henkel

LOCTITE®

PRO9317™
GENERAL PURPOSE
CLEAR

LOCTITE 3D PRO9317™

High-resolution resin engineered for translucent parts requiring precision and clarity. LOCTITE 3D PRO9317 delivers excellent surface finish and visual detail, making it ideal for concept modeling, fluid flow models, prototyping.

Its low water absorption helps maintain both optical quality and dimensional accuracy over extended periods, making it a dependable choice for parts that must retain performance in varied environments.

Broad compatibility with DLP printing platforms ensures integration into existing manufacturing workflows without compromising speed or reliability.

Benefits:

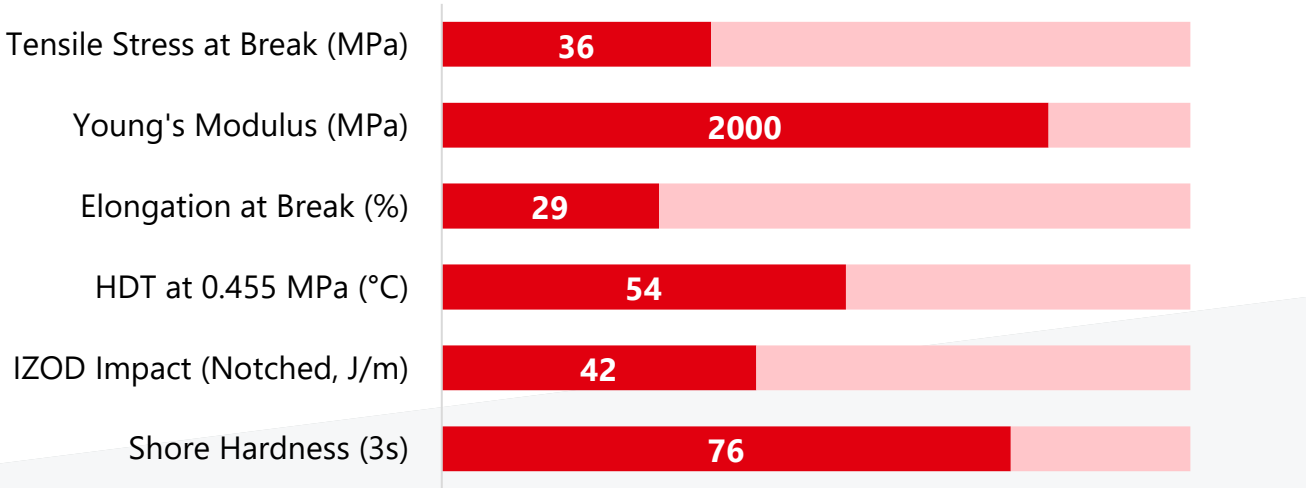
- Easy to print
- Translucent parts
- Great strength and impact resistant

Ideal for:

- Fluid flow models
- Housings and covers
- General Purpose

Markets:

Industry | Automotive | Consumer Goods



Henkel

LOCTITE®

PRO9317™
GENERAL PURPOSE
CLEAR

PROPERTIES

Mechanical Properties	Measure	Method	Green	Post Processed
Young's Modulus	MPa	ASTM D638	1100 ± 50[1]	2000 ± 50 [2]
Tensile Stress at Yield	MPa	ASTM D638	27 ± 1.3 [1]	45 ± 0.3 [2]
Elongation at Yield	%	ASTM D638	4.3 ± 0.2 [1]	3.7 ± 0.1 [2]
Tensile Stress at Break	MPa	ASTM D638	30 ± 1[1]	36 ± 2 [2]
Elongation at Break	%	ASTM D638	45 ± 4 [1]	29 ± 8 [2]
Flexural Modulus	MPa	ASTM D790	960 ± 60 [3]	1970 ± 70 [4]
Flexural Stress at Break	MPa	ASTM D790	-	-
Flexural Elongation at Break	%	ASTM D790	>5 [3]	>5 [4]
IZOD Impact (Notched)	J/m	ASTM D256	-	42 ± 5 [5]
Shore Hardness (3s)	D	ASTM D2240	-	76 [6]
Other Properties				
HDT at 0.455 MPa	°C	ASTM D648	-	54°C [7]
HDT at 1.82 MPa	°C	ASTM D648	-	48°C [7]
Water Absorption (24hr)	%	ASTM D570	-	0.31 [8]
Water Absorption (72hr)	%	ASTM D570	-	0.59 [8]
Solid Density	g/cm³	ASTM D1475	1.14 [9]	1.17 [9]

Liquid Properties	Measure	Method	Value
Viscosity at 25°C (77°F)	cP	ASTM D7867	461[10]
Liquid Density	g/cm³	ASTM D1475	1.08 [9]

Test parameters:
"All specimen are printed unless otherwise noted. All specimen were conditioned in ambient lab conditions at 19-23°C / 40-60% RH for at least 24 hours." ASTM Methods: D638 Type IV, 5 mm/min, D790-B, 2 mm/min, D648, D256 Notched IZOD (Machine Notched), 6 mm x 12 mm, D570 0.125" x 2" Disc 24hr@ 25°C, D2240, Type "D" (0, 3 seconds), D7867, D1475
*

Internal Data Sources:
[1]FOR819807, [2]FOR820343, [3]FOR820348, [4]FOR820346, [5]FOR820339, [6]FOR819839, [7]FOR819819, [8]FOR819825, [9]FOR821363, [10]FOR816425

Henkel

PRO9317™
GENERAL PURPOSE
CLEAR

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 3 PRO9317 CL is formulated to print optimally on industrial DLP and LCD 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: 2.5 mW/cm²

Settings: 405 nm at 2.5 mW/cm²	Measure	Method	Value
Layer Thickness	µm	Internal	100
Burn-in Region	s	Internal	15
Transition Region	s	Internal	-
Model Region	s	Internal	7.3

Settings: 405 nm at 2.5 mW/cm²	Measure	Method	Value
E_C	mJ/cm2	Internal	0.148 [11]
D_P	mm	Internal	0.156 [11]

Settings: 405 nm at 2.5 mW/cm²	Measure	Method	Exposure time
D_C = 50 µm	s	Internal	1.6*
D_C = 100 µm	s	Internal	2.2*

Test parameters:
*Exposure times are calculated without a safety factor

Internal data source:
[11] FOR846423

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

CLEANING

LOCTITE 3D PRO9317 CL 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 Step #1	IPA	Magnetic Spinner	2 min	2	Dry after each interval
Dry	n.a.	Compressed air	10 s to 60 s	1	Air pressure (50psi)
Wait before post curing	n.a.	Ambient condition	60 min	1	Room temperature

POST CURING

LOCTITE 3D PRO9317 CL requires post curing to achieve specified properties. It is recommended that either an LED or wide spectrum lamp be used to post cure parts.

UV Curing Unit	UV Source	Intensity	Cure time per side	Additional Settings (Shelf, Output Energy)
XiP Cure	405nm LED	25 mW/cm² at 405 nm	20 min	100%

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

STORAGE

Store LOCTITE 3D PRO9317 BK in the unopened container in a dry location. Optimal Storage: 8°C to 30°C. Storage below 8 °C or above 30°C can adversely affect product properties. Material removed from containers may be contaminated during use. For this reason, filter used resin with 190 µm mesh filter before placing back into proper storage container.

LIMITATIONS

DLP / LCD printers: LOCTITE 3D PRO417 BK shows sensitivity to higher shear stress.

LOCTITE®

PRO9317™
GENERAL PURPOSE
CLEAR

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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:
In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:
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. Henkel is 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.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada, Inc. the following disclaimer is applicable:
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of **Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark Usage
Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Henkel

FIND OUT MORE AT

LOCTITEAM.COM

LOCTITE®
Henkel Corporation
loctite3d@henkel.com