



LOCTITE® 3D PRO9499™

General Purpose
White

LOCTITE®
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PRO9499™

GENERAL PURPOSE
WHITE

LOCTITE 3D PRO9499™

LOCTITE 3D PRO9499 is a high-resolution, professional-grade resin built for industrial use. It delivers parts with fine detail and balanced mechanical properties including high tensile and flexural strength.

Its white matte finish makes it suitable for a wide range of uses. Combined with low water absorption and reliable performance across DLP and LCD platforms, LOCTITE 3D PRO9499 is recommended for prototypes, functional parts, and low-volume production.



Benefits:

- Moderate heat resistance, HDT 62° C
- Easy to print
- Durable and economical



Ideal for:

- Jigs and fixtures
- Housings and covers
- General purpose



Markets:



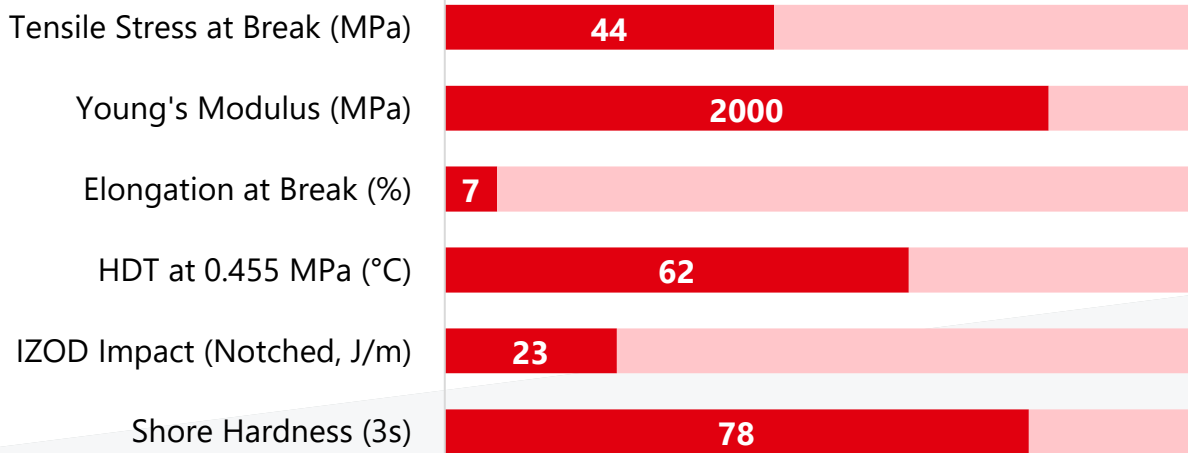
Industry



Automotive



Consumer Goods





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PROPERTIES

Mechanical Properties	Measure	Method	Green	Post Processed
Young's Modulus	MPa	ASTM D638	1300 ± 40 ^[1]	2000 ± 40 ^[2]
Tensile Stress at Yield	MPa	ASTM D638	33 ± 1 ^[1]	45 ± 1 ^[2]
Elongation at Yield	%	ASTM D638	4.3 ± 0.1 ^[1]	3.6 ± 0.1 ^[2]
Tensile Stress at Break	MPa	ASTM D638	34 ± 1 ^[1]	44 ± 3 ^[2]
Elongation at Break	%	ASTM D638	13 ± 4 ^[1]	7 ± 2 ^[2]
Flexural Modulus	MPa	ASTM D790	970 ± 80 ^[3]	1950 ± 20 ^[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	-	23 ± 4 ^[5]
Shore Hardness (3s)	D	ASTM D2240	-	78 ^[6]
Other Properties				
HDT at 0.455 MPa	°C	ASTM D648	-	62°C ^[7]
HDT at 1.82 MPa	°C	ASTM D648	-	50°C ^[7]
Water Absorption (24hr)	%	ASTM D570	-	0.18 ^[8]
Water Absorption (72hr)	%	ASTM D570	-	0.41 ^[8]
Solid Density	g/cm ³	ASTM D1475	1.19 ^[9]	1.18 ^[9]
Liquid Properties				
Viscosity at 25°C (77°F)	cP	ASTM D7867		530 ^[10]
Liquid Density	g/cm ³	ASTM D1475		1.11 ^[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, 5mm/min, D790-B, 2mm/min, D648, D256 Notched IZOD (Machine Notched), 6 mm x 12 mm, D570 0.125" x 2" Disc 24hr@ 25°C, D2240, Type "D" (3 seconds), D7867, D1475

Internal Data Sources:

[1]FOR812219, FOR814233 [2]FOR812218, FOR814234, [3]FOR813608, [4]FOR813607, [5]FOR813606, [6]FOR813611, [7]FOR814131, [8]FOR813613, [9]FOR818253, [10]FOR816424,



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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 PRO9499 WH is formulated to print optimally on LCD and DLP printers. 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: 2.5mW/cm²

Settings: 405 nm at 2.5 mW/cm ²	Measure	Method	Value
Layer Thickness	µm	Internal	100
Burn-in Region	s	Internal	34
Transition Region	s	Internal	-
Model Region	s	Internal	5

Settings: 405 nm at 2.5 mW/cm ²	Measure	Method	Value
E _C	mJ/cm ²	Internal	0.098 ^[11]
D _P	mm	Internal	0.025 ^[11]

Settings: 405 nm at 2.5 mW/cm ²	Measure	Method	Exposure time
D _C = 50 µm	s	Internal	2.2*
D _C = 100 µm	s	Internal	3.6*

Test parameters:

*Exposure times are calculated without a safety factor

Internal data source:

[11] FOR846422





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CLEANING

LOCTITE 3D PRO9499 WH 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 PRO9499 WH 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/cm ² at 405 nm	30 min	100%





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STORAGE

Store **LOCTITE 3D PRO9499 WH** 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.





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