

LOCTITE HHD 8150NS

July 2022

PRODUCT DESCRIPTION

LOCTITE HHD 8150NS provides the following product characteristics:

Technology	Methacrylate
Appearance - Part A	Yellow
Appearance - Part B	Blue
Appearance - Mixed	Green
Mix Ratio by volume, Part A:Part B	10 : 1
Cure	Room temperature cure after mixing
Product Benefits	- Fast cure - High strength
Application	Device assembly, Structural bonding
Typical Assembly Applications	- Laptop cover - Hand held devices - Consumer electronic enclosure bonding
Key Substrates	- Magnesium Aluminum alloys - Anodized Aluminum - PC and PC/ABS blends

LOCTITE HHD 8150NS two component methacrylate adhesive system is designed for use in handheld device cover assembly applications. This material reacts when mixed and is fully cured at room temperature.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Viscosity, Brookfield - RTV, 25 °C, mPa·s (cP)	50,000
Specific Gravity @ 25°C	0.98
Flash Point - See SDS	

Part B Properties (Isocyanate)

Viscosity, Brookfield - RTV, 25 °C, mPa·s (cP)	42,090
Specific Gravity @ 25°C	1.2
Flash Point - See SDS	

Mixed Properties

Specific Gravity @ 25 °C	0.99
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Open Time, minutes	5 to 6
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LOCTITE HHD 8150NS is cured after mixing at room temperature.

Cure speeds may vary based on adhesive and substrate temperatures. Reference the peak exotherm and open times on this datasheet as a guide to better understand curing time trends.

After the fixture time is achieved the material usually has reached handling strength. For heavy parts handling strength can take longer.

Parts should be fixed for a minimum period of 24 hours prior to applying a load.

TYPICAL PROPERTIES OF CURED MATERIAL

Sample cured 24 hours @ 22°C

Physical Properties

Hardness, Shore D	72
Volumetric Shrinkage, %	11.5
Glass Transition Temperature, °C	71
Coefficient of Thermal Expansion :	
Below Tg, K ⁻¹	100×10 ⁻⁰⁶
Above Tg, K ⁻¹	100×10 ⁻⁰⁶

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 24 hours @ 22°C

Shear Strength

Lap Shear Strength, N/mm ² :	
Anodized Aluminum	22
Polycarbonate	14

TYPICAL ENVIRONMENTAL RESISTANCE

Sample cured 24 hours @ 22°C

Lap Shear Strength, ISO 4587, AnAl

Chemical/Solvent Resistance

Aged under conditions indicated and tested at 22 °C

Environment	°C	% of initial strength	
		500 h	100 h
Air	65	90	85
Air	100	95	70
Air	175	60	70
95% RH	65	95	95
Water	87	85	75

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

DIRECTIONS FOR USE

Mixing

1. LOCTITE HDD 8150NS is typically applied either with the use of meter mix equipment or directly out of cartridges through static mix nozzles. These methods of application ensure that component A and B are dispensed and mixed at the proper ratio. When properly mixed, LOCTITE HDD 8150NS should achieve a uniform color.
2. When dispensed in a large mass, heat buildup during and after mixing is normal. To reduce the likelihood of an exothermic reaction or excessive heat buildup, mix less than 100 grams at a time. Mixing smaller amounts will minimize heat buildup.

Application

1. For best performance, surfaces should be clean and residue free prior to adhesive application.
2. To assure maximum bond strength, surfaces must be mated within the adhesive's open time.
3. Use enough material to completely fill the joint when parts are clamped.

STORAGE

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 2 to 8 °C

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb/F}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{N/mm}^2 = \text{MPa}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{ft}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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