Technical Data Sheet

LOCTITE HHD 3043

June 2018

PRODUCT DESCRIPTION

LOCTITE HHD 3043 provides the following product characteristics:

Technology	Acrylic
Chemical Type	Acrylated urethane
Appearance	Red liquid
Fluorescence	Positive
Cure	Ultraviolet (UV)/ visible light
Application	Device assembly, Structural bonding
Product Benefits	• Fast cure • High strength • Thixotropic

LOCTITE HHD 3043 is a fast cure thixotropic adhesive system designed for use on a wide variety of plastic substrate bonding. The viscosity of this product makes it well suitable for applications where flow control and dispense volume are highly required.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Rheometer, Physica, CP50-1, mPa·s (cP):	
@ Shear rate of 10 s^{-1}	18,700
@ Shear rate of 50 s^{-1}	7,100
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Fixture Time

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm² .

UV Fixture Time , Glass to Glass

70 mW/cm² , UVA, Metal Halide, seconds	<5
148 mW/cm² , LED, (405 nm), seconds	<5

The above cure profile is a guideline recommendation. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Hardness, Shore A, ISO 868:	
Cured @ 70 mW/cm² , UVA 4,200 mJ/cm² , Metal Halide	85
Cured @ 148 mW/cm² , Visible Light 6,500 mJ/cm² , LED 405 nm	85

The following are tested using Type IV lamp, test speed 300 mm/minute, cured @ 148 mW/cm² LED 405 nm, 6,500 mJ/cm² .

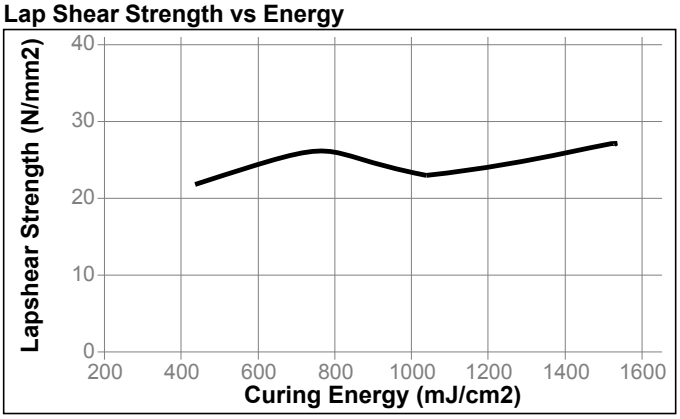
Elongation at break, ISO 527-2,%	200
Tensile Strength, ISO 527-2, N/mm²	>15

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Lap Shear Strength , ASTM 1002, (bondline width 2mm, 0.12mm thickness, test speed 2mm/min, cured at:148 mW/cm² LED 405nm, 1,500 mJ/cm²) , N/mm²	>20.0

Lap Shear Strength vs Energy



Sample cured LED 405nm

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

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

Data Ranges
The data contained herein may be reported as a typical value and/or range values based on actual test data and are verified on a periodic basis.

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

Optimal Storage : 8 to 28 °C unless otherwise labeled.

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 Technical Service Center or Customer Service Representative.

Conversions
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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Reference N/A