

LOCTITE® HHD 4042

December 2017

PRODUCT DESCRIPTION

LOCTITE® HHD 4042 provides the following product characteristics:

Technology	Epoxy/Acrylate
Appearance	Light yellow paste
Product benefits	Dual cure
Cure	Ultraviolet (UV) light, heat cure
Application	Device assembly, structural adhesive

LOCTITE® HHD 4042 dual cure adhesive is designed for use in the assembly of electronic components. This product is formulated to initially cure when exposed to UV light, followed with a secondary thermal cure to achieve maximum performance.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - RVT, 25°C, mPa·s (cP):

Spindle 52, speed 0.5 rpm 125,000

Specific gravity @ 25°C 1.63

Pot life @ 25°C, (keep away from light source), days 8

Flash point - see SDS

TYPICAL CURING PERFORMANCE

Recommended UV cure

UV wavelength, nm 300 to 500

UV tack-free time, seconds <6

Recommended heat cure schedule

1 hour @ 120°C

The above cure profile is a guideline recommendation. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of light source, exposure time and the light transmittance of the substrate.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical properties

Glass transition temperature (Tg) by TMA, °C 145

Coefficient of thermal expansion, cm/cm/°C

Alpha 1 45.38×10⁻⁶

Alpha 2 138.73×10⁻⁶

Volume shrinkage on cure, % 3.1

TYPICAL PERFORMANCE OF CURED MATERIAL AS MIXED

Sample cured 1 hour @ 120°C

Lap shear strength:

Steel	N/mm ² (psi)	21 (3,045)
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GENERAL INFORMATION

Please consult the Safety Data Sheet (SDS) for safe handling information of this product.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on the specifications of this product.

Storage

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

Optimal storage: -40 °C

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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

(°C x 1.8) + 32 = °F

kV/mm x 25.4 = V/mil

mm / 25.4 = inches

µm / 25.4 = mil

N x 0.225 = lb

N/mm x 5.71 = lb/in

N/mm² x 145 = psi

MPa x 145 = psi

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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