

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 - RTV, 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 (T _g) by TMA, °C	145
Coefficient of Thermal Expansion:	
Alpha 1, cm/cm/°C	45.38×10 ⁻⁶
Alpha 2, cm/cm/°C	138.73×10 ⁻⁶
Volume Shrinkage on Cure, %	3.1

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 1 hour @ 120°C

Lap Shear Strength :

Steel	N/mm ² 21
	(psi) (3,045)

GENERAL INFORMATION

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

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 specifications for this product.

STORAGE:

Store product in the 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 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/mm ²
MPa = N/mm ²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

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.

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Reference **N/A**