

LOCTITE[®] HHD 3622BK

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PRODUCT DESCRIPTION

LOCTITE[®] HHD 3622BK provides the following product characteristics:

Technology	Polyurethane Hot Melt
Appearance	Black Solid
Cure	Solidification and Moisture
Application	Structural adhesive, Electronic structural bonding
Components	One part - requires no mixing
Product Benefits	<ul style="list-style-type: none"> • Jettable PUR • Low modulus • Gap filling ability

LOCTITE[®] HHD 3622BK is a reactive hotmelt adhesive based on polyurethane prepolymers. This product is formulated with a viscosity suitable for robotic jetting applications along with an open time appropriate for use in automatic assembly line processing. Strong initial strength is realized immediately after the material solidifies at the bondline.

LOCTITE[®] HHD 3622BK has a secondary moisture cure that cross-links the bonds for excellent elongation and structural durability.

LOCTITE[®] HHD 3622BK will not remelt after it has been fully cured.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - Thermosel, 110 °C, mPa·s (cP):
 Spindle 27, speed 20 rpm 6,500
 Solids Content, % 100

TYPICAL CURING PERFORMANCE

Open Time @ 25 °C, minutes⁽¹⁾ ≥3
 Preheating Schedule 20 to 30 mins @ 110°C
 Application Temperature, °C 100 to 220
 Cure Schedule 7 days @ 25°C

¹Open time is the bonding range of a 1 mm bead of molten adhesive on substrate. It is based on room temperature environment. Higher temperature will lengthen the open time while lower environmental temperatures will shorten the open time.

LOCTITE[®] HHD 3622BK cures exclusively by moisture and gains its final strength in 1-5 days.

Curing is a chemical reaction depending on the following parameters:

- Humidity in the rooms of application and storage
- Moisture content on the substrates
- Permeability of the substrates to be bonded
- Application volume / layer of the adhesive film

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

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Elongation, %	684
Transmittance, 0.2 mm @ 550 nm, %	0.01
Modulus	N/mm ² 39
	(psi) (5,656)

Adhesion Properties

Cross Tensile Strength, sample cured 25°C, 60% RH, PC 3200 to Ink Glass:

for 2 hours	N/mm ² 1.5
	(psi) (218)
for 24 hours	N/mm ² 5.0
	(psi) (725)

Lap Shear Strength, sample cured 24 hours @ 25°C, 60 %RH:

PC 3200 to PC 3200	N/mm ² 10.4
	(psi) (1,508)

GENERAL INFORMATION

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

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

Pretreatment:

1. The bonding surfaces must be clean, dry and free of oil and grease.
2. Substrate temperature should not fall below 20°C during application.
3. Lower temperatures will lead to early solidification of the adhesive and to a reduced open time, the adhesive might even flake off.
4. The substrates may be preheated if necessary.

Application:

1. LOCTITE® HHD 3622BK can be applied from heating cartridge guns, from usual syringe type melting equipment.
2. At longer rest periods, melting and application temperatures should be decreased. Longer exposure to higher temperatures can lead to a viscosity increase.

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

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.

Not for product specifications

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

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb/F}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{N/mm}^2 = \text{MPa}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

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