

LOCTITE® HHD 3571BK

May 2024

PRODUCT DESCRIPTION

LOCTITE® HHD 3571BK provides the following product characteristics:

Technology	Polyurethane Hotmelt
Appearance	Black
Solids content	100%
Odor	Slight
Components	One component – requires no mixing
Cure	Moisture and Solidification
Application	Structure bonding; Electronic device assembly
Product benefits	• Excellent hot creep resistance • Good impact resistance • High bonding strength on dissimilar substrates • Good aging reliability

LOCTITE® HHD 3571BK is a reactive hotmelt adhesive based on polyurethane prepolymers. This material delivers robust performance on a wide range of substrates including ink glass, metal and engineering plastics such as PC, PA and PBT.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density @ 25°C, g/cm ³	1.10
Viscosity, Brookfield Thermosel @ 110°C, mPa.s (cP)	
Spindle #27, speed 20 min ⁻¹	5,300

TYPICAL CURING PERFORMANCE

Open time @ 25°C, minutes	3
Preheating schedule @ 110°C, minutes	20 to 30
Application temperature, °C	100 to 130

Open time varies depending on the substrate used, application temperature, and environment humidity. Higher temperature will prolong the open time while lower temperatures can shorten the open time.

LOCTITE® HHD 3571BK cures exclusively by moisture and gains its final strength in 1 to 7days. This material, however, exhibits suitable handling strength after bonding.

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 profiles are guideline recommendations. 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

Young's modulus ASTM D638, N/mm ²	68
Elongation at break, ASTM D638, %	800
Peel creep resistance @ 65°C/95% RH	Pass

Adhesion properties

Lap shear strength, after 72 hours, N/mm ² PC/20% GF to PC/20% GF	>8.0
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GENERAL INFORMATION

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

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 other 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. Low temperatures will lead to early solidification of the adhesive and to a reduced open time. The adhesive may even flake off.
4. The substrates may be preheated if necessary.

Application:

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

Optimal Storage: 8 to 28°C. Storage below 8°C or above 28°C can adversely affect product properties.

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.

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.

Conversions

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

Disclaimer

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Reference 2