



# LOCTITE® 3370™ BLACK

May 2011

## PRODUCT DESCRIPTION

LOCTITE® 3370™ BLACK provides the following product characteristics:

<b>Technology</b>	Polyurethane
<b>Chemical Type</b>	Polyurethane
<b>Appearance (uncured)</b>	Black <sup>LMS</sup>
<b>Components</b>	One part - requires no mixing
<b>Viscosity</b>	Paste
<b>Cure</b>	Atmospheric moisture
<b>Application</b>	Sealing or Bonding

LOCTITE® 3370™ BLACK is a fast curing one component polyurethane adhesive sealant. This product is a non-sag, multi-purpose adhesive that upon curing, provides a flexible, durable and resistant elastomeric seam with good adhesion to most industry materials. The skin formation and curing time depend on humidity, temperature, and joint depth. LOCTITE® 3370™ BLACK has high initial tack and excellent tear, vibration and weathering resistance. LOCTITE® 3370™ BLACK is easy to apply and it adheres without using a primer to most common substrates such as glass, aluminum, metal, wood and concrete.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Density, ISO 2811-1 @ 22 °C, g/ml	1.13 to 1.18
Extrusion Rate @ 23°C, D=6mm, 3 bar, after 24 hours:	
Sachet, g/min:	≥340 <sup>LMS</sup>
Cartridge, g/min:	≥400 <sup>LMS</sup>
Flow, ISO 7390, mm	≤9 <sup>LMS</sup>
Flash Point - See MSDS	

## TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. The product develops functional strength in 24 hours and fully cures in 7 days.

### Skin Over Time

Skin over time is the time the surface of the adhesive forms a skin upon exposure to atmospheric moisture at 25 ± 2 °C, 50 ± 5% RH.

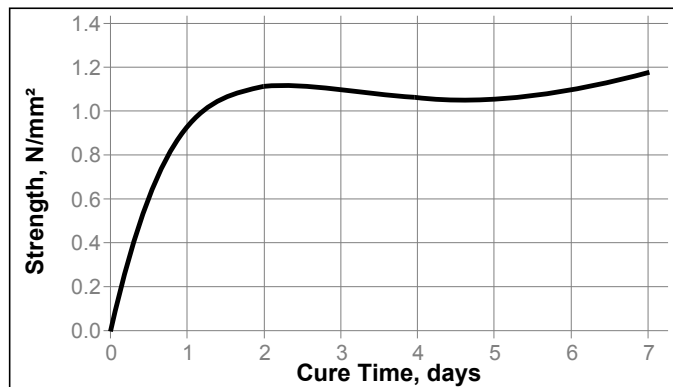
Skin Over Time, minutes	25 to 30
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### Tack Free Time

Tack Free Time, minutes	60 to 120 <sup>LMS</sup>
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## Cure Speed vs. Time

The graph below shows the shear strength developed over time at 22 °C / 50 % RH on Steel and tested according to ISO 4587.



## TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 3 days @ 23 °C / 50% RH

### Physical Properties:

Shore Hardness, ISO 868, Durometer A	≥38 <sup>LMS</sup>
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Cured for 7 days @ 22 °C / 50±5 % RH

### Physical Properties:

Elongation, at break, ISO 527-3, %	411
Tensile Strength, ISO 527-3	N/mm² 2.3 (psi) (330)

## TYPICAL PERFORMANCE OF CURED MATERIAL

### Adhesive Properties

Cured for 7 days @ 22 °C

Lap Shear Strength, ISO 4587:

Stainless Steel	N/mm² 1.2 (psi) (170)
Aluminum	N/mm² 1.2 (psi) (175)
Wood (Pine)	N/mm² 1.6 (psi) (230)
Glass	N/mm² 1.3 (psi) (195)

Block Shear Strength, ISO 13445:

Polycarbonate	N/mm² 0.9 (psi) (135)
PVC	N/mm² 0.2 (psi) (30)

"T" Peel Strength, ISO 11339:

Aluminum	N/mm 4.2 (lb/in) (24)
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**GENERAL INFORMATION**

**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**

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

**Directions for use:**

1. For best performance bond surfaces should be clean and free from grease.
2. Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
3. The bond should be allowed to cure (e.g. seven days), before subjecting to heavy service loads.
4. Excess material can be easily wiped away with non-polar solvents.

**Loctite Material Specification<sup>LMS</sup>**

LMS dated May 3, 2011. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

**Storage**

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

**Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 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 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**

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

**Note**

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Reference 0.1