

LOCTITE® AA 3041™

Known as LOCTITE® 3041™

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PRODUCT DESCRIPTION

LOCTITE® AA 3041™ provides the following product characteristics:

Technology	Acrylic
Chemical Type	Modified acrylic
Appearance (uncured)	Transparent to hazy liquid ^{LMS}
Fluorescence	Positive under UV light ^{LMS}
Components	One component - requires no mixing
Viscosity	Medium
Cure	Ultraviolet (UV)/ visible light
Cure Benefit	Production - high speed curing
Application	Bonding

LOCTITE® AA 3041™ is designed for bonding cannulae into hubs, syringes and lancets.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density @ 25 °C, g/ml 1.03
Flash Point - See SDS
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):
Spindle 3, speed 5 rpm, 8,300 to 12,600^{LMS}

TYPICAL CURING PERFORMANCE

LOCTITE® AA 3041™ can be cured by exposure to UV and/or visible light of sufficient intensity. Surface cure is enhanced by exposure to UV light in the 220 to 260 nm range. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of the light source, exposure time and light transmittance of the substrate through which the light must pass.

Fixture Time

UV fixture time is defined as the light exposure time required to develop a shear strength of 0.1 N/mm².

UV Fixture Time, Glass microscope slides, seconds:
30 mW/cm², measured @ 365 nm ≤ 2 ^{LMS}

TYPICAL PERFORMANCE OF CURED MATERIAL**Adhesive Properties**

Cured @ 120 mW/cm², measured @ 365 nm, for 6 seconds using a medium pressure mercury arc light source

Needle Pullout Strength:
Polypropylene N ≥ 34.2 ^{LMS}
(lb) (≥ 7.6)

TYPICAL ENVIRONMENTAL RESISTANCE**Effects of Sterilization**

Thermoset UV acrylic adhesives similar in composition to LOCTITE® AA 3041™ have been tested and found to have excellent bond strength retention after the following sterilization procedures:

- Ethylene Oxide (EtO), 88/12 and 100% EtO, 1 and 2 cycles
- Gamma Radiation, Cobalt 60 field, 2.5, 5.0, 7.5 and 10.0 megarads cumulative
- 121 °C to 126 °C steam for 30 minutes, 1 cycle

dc (Loctite suggests the customer test specific parts after subjecting them to the preferred sterilization method)

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 Safety Data Sheet (SDS).

Directions for use:

1. This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
2. The product should be dispensed from applicators with black feedlines.
3. For best performance bond surfaces should be clean and free from grease.
4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmittance of the substrate through which the radiation must pass.
5. This product performs best in thin bond gaps (0.05 mm).
6. Excess adhesive can be wiped away with organic solvent.
7. Bonds should be allowed to cool before subjecting to any service loads.

Loctite Material Specification^{LMS}

LMS dated February 27, 2003. 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:

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 2.1