

LOCTITE® AA 5831 M

September 2023

Product description

LOCTITE® AA 5831 M provides the following product characteristics:

Technology	Polyacrylate
Appearance	Pale yellow liquid, Translucent after cure
Fluorescence	Positive under UV light
Components	One-component
Primary cure	Ultraviolet (UV) light
Secondary cure	Moisture
Self-leveling	Uniform cavity fill
Plate to Plate Viscosity @ 5.0 s⁻¹ and 25 °C, mPa.s	2,500 to 7,000
Application	Potting
Operating temperature, °C	-40 to 140

LOCTITE® AA 5831 M is a dual cure UV/RTV polyacrylate potting material with excellent flow properties. Upon exposure to sufficient UV light, this product forms a soft, flexible low modulus rubber for sealing applications. It contains a fluorescent that can provide visual inspection under UV light.

UL classification

Classified by Underwriters Laboratories Inc.® E257711 -Vol 6 Plastics & Components. Please visit the UL website for additional information.

Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

Typical properties of uncured material

Specific gravity @ 25°C	1.08
RTV Skin Over Time @ 50 ±5% RH (Hours)	<24
Flash point, °C	82
Autoignition temperature, °C	415

Typical curing performance

Depth of cure, mm	≥5
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30 s @ 270 mW/cm² measured over the whole spectrum@ 365 nm, 275 nm and 230 nm absorption maximum of photoinitiators.

Typical properties of cured material

Two times 30 seconds @ 270 mW/cm², measured over the whole spectrum followed by 14 days @ 23 ± 2°C / 50 ± 5 % RH, 2 mm thick film. tested at 25°C.

Physical Properties

Shore hardness, ISO 868, Durometer A	>15
Elongation at break, ISO 37, %	>130
Tensile strength, ISO 37, (N/mm ²)	>1
Tensile strength, ISO 37, (psi)	180 to 210
Tg Onset by DSC, °C	-47
Tg Onset by DMA, °C	-68
Tg Peak Tan Delta by DMA, °C	-53
CTE (range -20°C to 80°C (E ⁻⁶ /°C)	331
Water absorption, ISO 62 Method 4 (wt.-%) 24 hrs @ 23°C / 50% RH	2.2
Shrinkage, %	1.4
Thermal conductivity, (W/m K)	0.21

Electrical properties

Volume resistivity, Ohm-m	2.1×10 ¹⁰
Surface resistivity, Ohm	3.2×10 ⁹
Dielectric strength, kV/mm	14.2
Dielectric Constant/Dissipation Factor	
50 Hz	12.0/0.1
1 kHz	12.0/0.1
1 MHz	6.1/0.049

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).

Direction for use

This product is UV light sensitive: exposure to daylight, UV light, and artificial lighting should be kept to a minimum during storage and handling.

This product is sensitive to atmospheric moisture: exposure to air should be kept to a minimum during storage and handling.

Storage

Shelf-life (in unopened original packaging), months	9
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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 28°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 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

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

Additional information**Disclaimer**

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