



LOCTITE[®] 5421[™]

June 2009

PRODUCT DESCRIPTION

LOCTITE[®] 5421[™] provides the following product characteristics:

Technology	Silicone
Chemical Type	Alkoxy silicone
Appearance (uncured)	Tan Paste ^{LMS}
Components	One component - requires no mixing
Cure	Room temperature vulcanizing (RTV)
Application	Bonding or Gasketing
Flexibility	Enhances load bearing & shock absorbing characteristics of the bond area.

LOCTITE[®] 5421[™] is used for automotive sensor bonding and gasketing of EMI/RF shielded enclosures. It cures to make a flexible, formed-in-place, electrically conductive bond.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 20 °C 3.05 to 3.3^{LMS}
Flash Point - See MSDS

TYPICAL CURING PERFORMANCE

Surface Cure

LOCTITE[®] 5421[™] becomes tack free on exposure to atmospheric moisture within 1 hour at 23±2°C / 50±5%RH.

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 72 hours @ 25 °C / 50±5 % RH:

Physical Properties:

Tensile Strength, ISO 37 N/mm² ≥0.7^{LMS}
(psi) (≥102)
Elongation, ISO 37, % ≥40^{LMS}
Shore Hardness, ISO 868, Durometer A 50 to 65^{LMS}

Cured for 24 hours @ 25±2 °C / 50±5% RH:

Electrical Properties:

Volume Resistivity, IEC 60093, Ω·cm ≤0.01^{LMS}

TYPICAL PERFORMANCE OF CURED MATERIAL

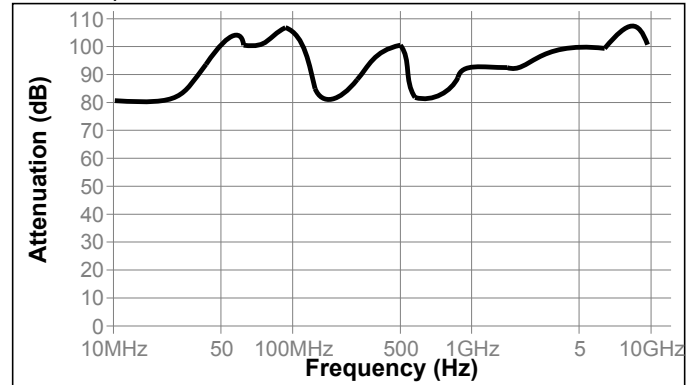
Adhesive Properties

Cured for 7 days @ 25 °C / 50±5 % RH:

Lap Shear Strength, ISO 4587:
Alclad to Alclad N/mm² ≥0.4^{LMS}
(psi) (≥58)

EMI/RF Shielding Effectiveness

30% compression level



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. Product should be brought to room temperature before use.
2. For best performance bond surfaces should be clean and free from grease.
3. Full performance properties will develop over 72 hours.
4. 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.
5. Excess material can be easily wiped away with non-polar solvents.

NOTE: LOCTITE[®] 5421[™] is not recommended for use as a cured-in-place gasket (cured prior to assembly).

Loctite Material Specification^{LMS}

LMS dated May 25, 2004. 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: -20 °C. Storage greater than minus (-)20 °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 1.2