



LOCTITE® 5975™

November 2004

PRODUCT DESCRIPTION

LOCTITE® 5975™ provides the following product characteristics:

Technology	Silicone
Chemical Type	Silicone
Appearance (Part A)	Grey liquid ^{LMS}
Appearance (Part B)	White liquid ^{LMS}
Thixotropic	Reduced migration of liquid product after application to substrate
Components	Two component - requires mixing
Mix Ratio - Part A: Part B	1 : 1
Cure	Heat cure
Application	Gasketing and Sealing
Specific Benefit	Adheres to a wide range of substrates, including metals

LOCTITE® 5975™ is designed for use as a cure-in-place compression gasket material. The product is designed for excellent thermal resistance and compression set properties. Its intended uses can range from sealing high performance assemblies to high temperature, high performance assemblies.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A:

Viscosity @ 25 °C, mPa·s (cP)	50,000 to 120,000 ^{LMS}
Density @ 25 °C, g/cm³	1.05 to 1.11 ^{LMS}
Flash Point - See MSDS	

Part B:

Viscosity @ 25 °C, mPa·s (cP)	50,000 to 120,000 ^{LMS}
Density @ 25 °C, g/cm³	1.07 to 1.15 ^{LMS}
Flash Point - See MSDS	

Mixed:

Working Time @ 25 °C, minutes	3
Cure Time @ 80 °C, minutes	10
Density @ 25 °C, g/cm³	0.37 to 0.52

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Shore Hardness, ASTM D 2240, Durometer OO	57
Elongation, at break, ASTM D 412, %	127
Tensile Strength, at break, ASTM D 412	N/mm² (psi) 0.45 (65)
Compression Set @ 50% initial deflection, %:	
ASTM D 395, Method B:	
Clamped for 22 hours @ 70 °C	8
Clamped for 70 hours @ 23 °C	3

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

Substrate Preparation

Each substrate must be clean for best adhesion, with no dirt, oils, release agents, dust or shavings. Wash the substrate, if necessary. However, certain cleaning solutions may leave a residue that can effect adhesion.

Metering/Mixing

LOCTITE® 5975™ should be metered using a positive displacement device such as a gear pump and mixed using a dynamic mixer. Mixing Part A and Part B at a ratio other than 1:1 may lead to poor performance.

Dispensing

LOCTITE® 5975™ should be dispensed using a suitable robot, XYZ table or other motion device to obtain a uniform bead. The gasket bead size to be specified is a function of the anticipated gap size for the part and the flange width.

Cure

It is important that LOCTITE® 5975™ be heat cured immediately following the dispensing of the product. The cure profile provided should be used as a guide and adjusted for potential thermal effects of the part size, components and oven capabilities when setting your curing conditions.

Certain materials, chemicals, curing agents and plasticizers can inhibit the cure of LOCTITE® 5975™. The most notable are organo-tin and other organo-metallic compounds which contain N, P, and S elements.

If a substrate is questionable with respect to causing inhibition of cure, it is recommended that a compatibility test be run to determine suitability. The presence of liquid, uncured product at the interface between the substrate and foam bead indicates inhibition of cure and incompatibility.

Loctite Material Specification^{LMS}

LMS dated May 1, 2004 (Part A) and LMS dated May 1, 2004 (Part B). 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 Loctite 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

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

Note

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