

Loctite® SI 5623™

Known as Loctite® 5623™
January 2015

PRODUCT DESCRIPTION

Loctite® SI 5623™ provides the following product characteristics:

Technology	Silicone
Chemical Type	Alkoxy silicone
Appearance, Resin (Component A)	Transparent liquid
Appearance, Hardener (Component B)	Transparent liquid
Appearance (Mixture)	Transparent liquid
Components	Two component - requires mixing
Cure	Room temperature vulcanizing (RTV)
Mix Ratio, by volume - Resin : Hardener	1 : 1
Application	• Potting • Protective from moisture, vibration, thermal shock and mechanical shock

Loctite® SI 5623™ is a two-component silicone that will cure at room temperature or at elevated temperatures. After mixing, the material cures quickly to form a clear, very flexible elastomer.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A:

Specific Gravity @ 22 °C	0.97
Viscosity, Brookfield, 25 °C, mPa·s (cP): Spindle 3, speed 50 rpm	600 to 1,000 ^{LMS}

Part B:

Specific Gravity @ 22 °C	0.97
Viscosity, Brookfield, 25 °C, mPa·s (cP): Spindle 3, speed 50 rpm	600 to 1,000 ^{LMS}

Mixed:

Specific Gravity @ 22 °C	0.97
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TYPICAL CURING PERFORMANCE

Gel Time

Gel time, 25 °C, minutes	30 to 100 ^{LMS}
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TYPICAL PROPERTIES OF CURED MATERIAL

After 30 minutes @ 150 °C

Physical Properties:

Shore Hardness, ISO 868, Durometer OO 30 to 55^{LMS}

Cured for 72 hours @ 22 °C

Physical Properties:

Refractive Index	1.41
Coefficient of Thermal Conductivity ASTM F 433, W/(m·K)	0.15
Coefficient of Thermal Expansion, ISO 11359-2, K ⁻¹ :	
Pre Tg	308×10 ⁻⁶
Post Tg	341×10 ⁻⁶

TYPICAL ENVIRONMENTAL RESISTANCE

Silicones provide excellent environmental resistance due to their unique chemical structure and the inherent properties of the materials.

GENERAL INFORMATION

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

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.

Directions for use:

1. For high strength structural bonds, remove surface contaminants such as paint, oxide films, oils, dust, mold release agents and all other surface contaminants.
2. Use gloves to minimize skin contact. DO NOT use solvents for cleaning hands.
3. **Dual Cartridges:** To begin using a new cartridge, remove cartridge cap and dispense a small amount of adhesive, making sure both parts A&B are extruding. Attach nozzle and dispense approximately 25 to 50mm, before applying onto part to be bonded. Partially used cartridges can be stored with the mixing nozzle attached. To reuse, remove and discard old nozzle, attach the new nozzle, dispense approximately 25 to 50mm, before applying onto part to be bonded.
Bulk Containers: Normally material is dispensed through volumetric metered mixing equipment, attached to static mix nozzles.
4. Application to the substrates should be made as soon as possible. Larger quantities and/or higher temperatures will reduce the working time.
5. Keep assembled parts from moving during cure. The bond should be allowed to develop full strength before subjecting to any service load.
6. Excess material can be easily wiped away with non-polar solvents.

Loctite Material Specification^{LMS}

LMS dated October 22, 2008. 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 0.2