

# LOCTITE<sup>®</sup> SI 587<sup>™</sup>

Known as LOCTITE<sup>®</sup> 587  
August 2014

## PRODUCT DESCRIPTION

LOCTITE<sup>®</sup> SI 587<sup>™</sup> provides the following product characteristics:

<b>Technology</b>	Silicone
<b>Chemical Type</b>	Oxime silicone
<b>Appearance (uncured)</b>	Metallic blue paste <sup>LMS</sup>
<b>Components</b>	One component - requires no mixing
<b>Thixotropic</b>	Reduced migration of liquid product after application to substrate
<b>Cure</b>	Room temperature vulcanizing (RTV)
<b>Application</b>	Gasketing or Sealing
<b>Flexibility</b>	Enhances load bearing & shock absorbing characteristics of the bond area.
<b>Specific Application</b>	Gasket replacement or Gasket dressing
<b>Specific Benefit</b>	Excellent resistance to automotive engine oils and Adheres to a wide range of substrates

LOCTITE<sup>®</sup> SI 587<sup>™</sup> is used for gasketing and sealing applications for both plant maintenance and small, medium, and large-sized OEM. As a formed-in-place gasket/sealant, LOCTITE<sup>®</sup> SI 587<sup>™</sup> has been designed to give outstanding performance in typical automotive gasketing applications including valve covers, rocker covers, oil pans, water pumps, end seals, intake manifolds, and rear axle housings. Excellent adhesive for bonding and repairing fabricated silicone gaskets. This product is typically used in applications up to 260 °C.

### NSF International

**Registered to NSF Category P1** for use as a sealant where there is no possibility of food contact in and around food processing areas. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

### UL Classification

**Classified by Underwriters Laboratories Inc.<sup>®</sup> E257711** - 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	1.28 to 1.33 <sup>LMS</sup>
Extrusion Rate, g/min:	
Pressure 0.62 MPa, time 15 seconds, temperature 25 °C:	
Semco Cartridge	250 to 600 <sup>LMS</sup>
Flow, ISO 7390, mm:	
After 2 minutes @ 25 °C	≤12.7 <sup>LMS</sup>
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Surface Cure

Tack Free Time, minutes:	
Cured @ 25 °C / 50±5 % RH	10 to 50 <sup>LMS</sup>

## TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 7 days @ 25 °C / 50±5 % RH

### Physical Properties:

Tensile Strength, ISO 37	N/mm <sup>2</sup> ≥1.6 <sup>LMS</sup> (psi) (≥232)
Elongation, ISO 37, %	≥350 <sup>LMS</sup>
Shore Hardness, ISO 868, Durometer A	26 to 40 <sup>LMS</sup>

## 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. For best performance bond surfaces should be clean and free from grease.
2. Full performance properties will develop over 72 hours.
3. 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.
4. Excess material can be easily wiped away with non-polar solvents.
5. Excess cured material can be removed with a knife or single edge razor blade.

*NOTE: Do not use LOCTITE<sup>®</sup> SI 587<sup>™</sup> for gasketing carburetors or fuel control devices where it will be in constant contact with hydrocarbon fuels. Material will develop excessive swell and loss of mechanical properties.*

*Do not use LOCTITE® SI 587™ as a sealant for concentrated solutions of acetic, hydrochloric, nitric or sulfuric acids.*

#### Loctite Material Specification<sup>LMS</sup>

LMS dated June 8, 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: 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

#### Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

#### Reference 1.4