

LOCTITE[®] SI 598[™]

Known as LOCTITE[®] 598[™]
December 2013

PRODUCT DESCRIPTION

LOCTITE[®] SI 598[™] provides the following product characteristics:

Technology	Silicone
Chemical Type	Oxime silicone
Appearance (uncured)	Metallic black paste ^{LMS}
Components	One component - requires no mixing
Thixotropic	Reduced migration of liquid product after application to substrate
Cure	Room temperature vulcanizing (RTV)
Application	Gasketing
Flexibility	Enhances load bearing & shock absorbing characteristics of the bond area.
Specific Application	Gasket replacement or Gasket dressing
Specific Benefit	Excellent resistance to automotive engine oils

LOCTITE[®] SI 598[™] cures on exposure to moisture in the air to form a tough, flexible, silicone rubber gasket. This product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. Typical applications include oil pans, transmission pans, valve covers, valves and guides, timing gear covers, and differential covers. This product is typically used in applications with an operating range of -54 °C to 260 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.27 to 1.32 ^{LMS}
Extrusion Rate, g/min: Pressure 0.62 MPa, time 15 seconds, temperature 25 °C: Semco Cartridge	220 to 550 ^{LMS}
Flow, ISO 7390, mm: After 3 @ 25 °C	≤13 ^{LMS}
Flash Point - See SDS	
Odor	No Acetic Odor

TYPICAL CURING PERFORMANCE

Surface Cure

Tack Free Time, minutes: Cured @ 25 °C / 50±5 % RH	≤25 ^{LMS}
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TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 7 days @ 25 °C / 50±5 % RH

Physical Properties:

Tensile Strength, ISO 37	N/mm ² (psi)	≥1.3 ^{LMS} (≥190)
Elongation, ISO 37, %		≥325 ^{LMS}
Shore Hardness, ISO 868, Durometer A		26 to 40

TYPICAL ENVIRONMENTAL RESISTANCE

The product retains effective properties in contact with automotive fluids, such as motor oil, transmission fluids, alcohol and antifreeze solutions.

NOTE: *Not recommended for parts in contact with gasoline.*

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:

- For best performance bond surfaces should be clean and free from grease.
- Full performance properties will develop over 72 hours.
- 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.
- Excess material can be easily wiped away with non-polar solvents.

NOTE: LOCTITE[®] SI 598[™] *is not recommended for use as a cylinder head gasket or head gasket sealant.*

Loctite Material Specification^{LMS}

LMS dated August 12, 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.

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Reference 1.3