



LOCTITE® SI 5803

Known as LOCTITE® 5803
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PRODUCT DESCRIPTION

LOCTITE® SI 5803 provides the following product characteristics:

Technology	Silicone
Chemical Type	Oxime silicone
Appearance (uncured)	Black/ grey paste
Components	One component - requires no mixing
Viscosity	Thixotropic paste
Cure	Room temperature vulcanizing (RTV)
Application	Sealing
Specific benefits	Excellent resistance to automotive engine oils and coolant

LOCTITE® SI 5803 is a one component RT cure silicone product designed for flange sealing applications. The thixotropic nature of LOCTITE® SI 5803 reduces the migration of liquid product after application to the substrate. Typical applications include stamped sheet metal covers (timing covers and oil sumps) where good oil resistance and the ability to withstand high joint-movement is required. It withstands on line, low pressure tests carried out before product begins to cure.

Typical properties of uncured material

Specific gravity @ 23°C	1.35
Extrusion rate, g/15s	
Pressure 0.4 Mpa, @25°C	
4mm Φ, flowmeter	100

Typical curing performance

Skin over time

Skin over time is the time the surface of adhesive forms a skin upon exposure to atmospheric moisture at 23°C/50% RH

Skin over time, minutes	10
Cured @ 23°C/50% RH	

Typical performance of cured material

Cured for 1 week @ 23°C / 50% RH

Physical properties:

Shore hardness, ISO 868, Durometer A		45 - 50
Elongation at break, ISO 37, %		220
Tensile strength, ISO 37	N/mm ² (psi)	2.1 (305)

Adhesive properties

Cured for 1 week @ 23°C / 50% RH
25.4 x 12.7mm overlap with 0.5mm gap

Lap shear strength, ISO 4587:	N/mm ²	1.5
Aluminum (Alclad)	(psi)	(220)

Typical environmental resistance

Cured for 1 week @ 23°C / 50% RH
25.4 x 12.7mm overlap with 1mm gap
Lap shear strength, ISO 4587:
Aluminum (alclad) or mild steel (grit blasted)

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 the surfaces should be clean and free from grease.
2. 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.
3. The product should be allowed to cure (e.g. 7 days), before subjecting to heavy service loads.
4. Excess material can be easily wiped away with non-polar solvents.
5. For fully automatic applications a volumetric dispensing system is recommended.



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 Henkel representative.

Product Specification

The technical data contained herein are intended as reference only and are not considered specifications for the product.

Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and certificate

Please contact Henkel representative for related approval or certificate of this product.

Data ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

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