

LOCTITE SI 5406M

December 2016

PRODUCT DESCRIPTION

LOCTITE SI 5406M provides the following product characteristics:

Technology	Oxime Silicone
Appearance	White liquid
Product Benefits	• One component, requires no mixing • High thermal conductivity • Flexible • Non-corrosive • Good adhesion • Fast surface cure
Cure	Room temperature vulcanizing (RTV)
Application	Thermal adhesive
Typical Applications	Thermal interface adhesive, Thermal sensor potting

LOCTITE SI 5406M flexible, RTV silicone adhesive is engineered to enhance load bearing and shock absorbing properties of the bonded area. This material is also used to protect electrical devices from corrosion and mechanical stress such as vibration.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, :

Speed 1 rpm 150,000

Extrusion Rate, g/min:

Pressure 0.6 MPa, temperature 25 °C:

Semco Cartridge 400 to 900

Specific Gravity @ 25°C

2.5

Flash Point - See SDS

TYPICAL CURING PERFORMANCE**Recommended Curing Conditions**

7 days @ 23 °C , 50% relative humidity

Tack Free Time

Tack Free Time, @ 22°C/50% RH, minutes 3 to 10

LOCTITE SI 5406M quickly forms a skin of cured material, then slowly cures to a solid elastomer in 1 to 2 days. The curing rate and depth of cure is greatly influenced by environmental temperature and humidity.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 week @ 23 °C / 50±5% RH

Physical Properties :

Coefficient of Thermal Conductivity, ASTM D5470-95, 1.5

W/(m-K)

Coefficient of Thermal Expansion , TMA, ppm/°C <145

Hardness , , Durometer A, ASTM D2240 70

Tension Strength, ASTM D412:

N/mm² 2.5

(psi) 362

Elongation , ASTM D412,% 102

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for 1 week @ 23 °C / 50±5 % RH

Lap Shear Strength, ISO 4587:

Steel to Steel :

0 gap N/mm² 2.1
(psi) (304)

GENERAL INFORMATION

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

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

DIRECTIONS FOR USE

1. This product is sensitive to moisture. Exposing adhesive directly to air will cause the adhesive to cure.

STORAGE:

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 8 to 28 °C

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
 $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$
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