Technical Data Sheet

LOCTITE® SI 594

Known as LOCTITE® Superflex® White RTV Silicone
January 2016

PRODUCT DESCRIPTION

LOCTITE® SI 594 provides the following product characteristics:

Technology	Silicone
Chemical Type	Acetoxy silicone
Appearance (uncured)	White homogeneous paste[LMS]
Components	One component - requires no mixing
Viscosity	Thixotropic paste
Cure	Room temperature vulcanizing (RTV)
Application	Potting, Coating or Sealing

LOCTITE® SI 594 is designed for superior bonding and sealing properties to most surfaces (not recommended for concrete). This product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. It is formulated to withstand extreme temperature cycling, UV light and ozone. The thixotropic nature of LOCTITE® SI 594 reduces the migration of liquid product after application to the substrate.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.01
Flash Point - See SDS	
Extrusion Rate, g/min:	
Pressure 0.63 MPa, time 15seconds, temperature 25 °C:	
Semco Cartridge	≥300[LMS]

TYPICAL CURING PERFORMANCE

LOCTITE® SI 594 cures on exposure to moisture in the air. The product dries tack free in two hours and fully cures in 24 hours. Cure times will vary with temperature, humidity and gap.

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 week @ 22°C

Physical Properties:

Shore Hardness, ISO 868, Durometer A	≥14[LMS]
Elongation, ISO 37, %	≥275[LMS]
Tensile Strength, ISO 37	≥0.8[LMS] (≥116)

TYPICAL ENVIRONMENTAL RESISTANCE

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

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.

Loctite Material Specification[LMS]

LMS dated July 16, 1999. 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 Henkel representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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