



LOCTITE® SI 5649

LOCTITE® SI 5649 April 2026

Product description

LOCTITE® SI 5649 provides the following product characteristics:

Technology	Silicone
Chemical type	2K additional cure
Appearance (cured)	Pink
Appearance - Part A	Red
Appearance - Part B	White
Mixing ratio	1:1 by volume 1:1 by weight
Cure	Recommend 100°C x 30 min
Application	Electronic assemblies

LOCTITE® SI 5649 is a two part, fast cure, low viscosity, self-leveling silicone for thermal potting applications. It features high thermal conductivity, excellent electrical insulation properties, a convenient mix ratio and can be cured over a wide range of temperatures.

Typical properties of uncured material

Part A properties

Specific gravity, ASTM D792,@ 25°C, g/cc	3.00
Viscosity @ 25 °C, mPa·s (cP) @ 10 s ⁻¹	7,990

Part B properties

Specific gravity, ASTM D792,@ 25°C, g/cc	3.00
Viscosity @ 25 °C, mPa·s (cP) @ 10 s ⁻¹	7,800

Mixed properties

Specific gravity, ASTM D792,@ 25°C, g/cc	3.00
Viscosity @ 25 °C, mPa·s (cP) @ 10 s ⁻¹	8,130
Pot life @ 25°C, min	>40

Typical properties of cured material

Physical properties

Hardness, Shore 00, ASTM D2240	70
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Thermal properties

Thermal conductivity, TIM1400, ASTM D5470, W/mK	3.6
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Electrical properties

Volume resistivity, ASTM D257, Ω·cm	>1x10 ¹³
Dielectric strength, ASTM D149, kV/mm	>10

General information

The cure of this silicone product may be inhibited through contact with certain contaminants. Avoid contact with butyl and chlorinated rubbers, amines, sulfur or sulfur containing materials, tin containing compounds, or heavy metal salts.

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

Direction for use

Filler settling is common during shipment and storage of potting materials, so product in each pail must be pre-mixed appropriately until homogeneous before using. Please consult Henkel experts for detailed equipment or conditions.

Storage

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

Optimal storage: at 5 to 25°C.

Transportation condition: -20 to 30°C within one week.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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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