Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Technical Data Sheet

LOCTITE® SI 5140™

Known as LOCTITE® 5140
August 2014

PRODUCT DESCRIPTION

LOCTITE® SI 5140™ provides the following product characteristics:

Technology	Silicone
Chemical Type	Alkoxy silicone
Appearance (uncured)	Translucent milky white viscous liquid[LMS]
Components	One component - requires no mixing
Cure	Room temperature vulcanizing (RTV)
Application	Sealing or Coating
Specific Benefit	Non-corrosive
Self-leveling	Uniform cavity fill
Flexibility	Enhances load bearing & shock absorbing characteristics of the bond area.

LOCTITE® SI 5140™ is used for potting, coating and sealing of various automotive, electronic, military and industrial components. LOCTITE® SI 5140™ resists weathering, moisture, ozone and retains its properities through severe environments. This product is typically used in applications up to 200 °C.

Mil-A-46146B

LOCTITE® SI 5140™ is tested to the lot requirements of Military Specification Mil-A-46146B. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.05
Solids/Non-Volatile Content, %	≥92[LMS]
Flash Point - See SDS	
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):	
Spindle 6, speed 2.5 rpm,	30,000 to 140,000[LMS]
Spindle 6, speed 20 rpm	15,000 to 55,000[LMS]

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 1 week @ 21 to 26 °C / 50±5 % RH

Physical Properties:

Coefficient of Thermal Expansion, ISO 11359-2, K^{-1}		2.9×10^{-4}
Shore Hardness, ISO 868, Durometer A		≥15[LMS]
Elongation, ISO 37, %		≥150[LMS]
Tensile Strength, ISO 37	N/mm² (psi)	≥1[LMS] (≥145)
Tear Strength, ISO 34-1 , Die B	N/mm (lb/in)	17.5 (100)
Water Absorption, ISO 62, %:		
24 hours in water @ 23 °C		0.05
Water Vapor Trans. Rate, ASTM E96, g/(h·m²)		1.5

Electrical Properties:

Dielectric Breakdown Strength, IEC 60243-1, kV/mm	16
Volume Resistivity, IEC 60093, Ω·cm	7×10^{16}
Dielectric Constant / Dissipation Factor, IEC 60250:	
100 Hz	3.05 / 0.015
1 kHz	3.05 / 0.009
1 MHz	3.05 / 0.0016

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 1 week @ 23 °C / 50±5 % RH

Lap Shear Strength, ISO 4587:

Aluminum to Glass	N/mm² (psi)	1.7 (245)
Steel to Glass	N/mm² (psi)	1.8 (260)
Glass to Glass	N/mm² (psi)	1.7 (245)

TYPICAL ENVIRONMENTAL RESISTANCE

Heat Resistance

Cured for 1 week @ 200 °C

Shore Hardness, ISO 868, Durometer A		30
Elongation, ISO 37, %		200
Tensile Strength, ISO 37	N/mm² (psi)	1.8 (260)

Hydrolytic Stability

Cured for 28 days @ 95 °C / 98% RH

Shore Hardness, ISO 868, Durometer A		22
Elongation, ISO 37, %		235
Tensile Strength, ISO 37	N/mm² (psi)	1.7 (250)

GENERAL INFORMATION

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 March 25, 1996. 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: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °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

(°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

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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 1.4