

LOCTITE STYCAST US 1750

November 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST US 1750 provides the following product characteristics:

Technology	Urethane
Appearance, Resin (Component A)	clear
Appearance, Hardener (Component B)	clear
Appearance (cured)	clear
Components	Two components - requires mixing
Mix Ratio, by volume - Part A: Part B	1 : 1
Mixing Ratio, by weight Component A: Component B	50.5 : 49.5
Cure	Room temperature cure
Application	Potting and Encapsulating

LOCTITE STYCAST US 1750 elastomeric polyurethane, is a water-white, clear, medical grade, fast gel potting material. It is ideal for blood heat exchanger, dialyzer and oxygenator units.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, @ 25 °C, g/cm ³	1.08
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	350

Part B Properties

Density, @ 25 °C, g/cm ³	1.06
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	370

Mixed Properties

Gel Time, 100 gm mass @ 45 °C, minutes	5 to 7
Drystick Gel 25 gm mass, @ 25 °C, minutes	60 to 70
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	510

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

16 hours @ 25 °C (Recommended cure)
1 hour @ 50 °C (Alternate cure)

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties :

Shore Hardness , Durometer A	78
Density, @ 25 °C, g/cm ³	1.07
Tensile Strength, psi	541
Tensile Elongation, %	198
Glass Transition Temperature, °C	30
Coefficient of Linear Thermal Expansion, ppm/°C:	
Alpha 1, @ -20 to 0 °C	137
Alpha 2, @ 60 to 80 °C	235
Thermal Conductivity , W/(m-K)	0.19

Electrical Properties:

Dielectric Strength, 20 mil thickness, volts/mil	1,292
Surface Resistivity, ohms @ 25°C	5.66×10 ¹³
Volume Resistivity, ohm-cm	1.06×10 ¹³
Dielectric Constant / Dissipation Factor @ 25°C:	
100 Hz	6.41 / 0.072
1 kHz	5.99 / 0.067
100 kHz	5.01 / 0.056

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.

Note: Before using this product please purge approximately 30 ml. of material prior to application. Discard purged material in accordance with the Material Safety Data Sheet. A video instruction is available upon request.

STORAGE:

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

Liquid Storage - Liquids should be stored at 25°C or below, in closed containers. If stored below 25°C, the material MUST be allowed to come to room temperature, in the sealed container, to avoid moisture contamination.

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

Americas
+1.888.943.6535

Europe
+32.1457.5611

Asia
+86.21.3898.4800

For the most direct access to local sales and technical support visit: www.henkel.com/electronics