

# LOCTITE STYCAST US 5544

November 2016

## PRODUCT DESCRIPTION

LOCTITE STYCAST US 5544 provides the following product characteristics:

<b>Technology</b>	Urethane
Appearance, Resin (Component A)	Clear brown
Appearance, Hardener (Component B)	Opaque white
Appearance (Mixture)	Opaque white
Components	Two components - requires mixing
Mix Ratio, by volume - Part A: Part B	1 : 4.81
Mixing Ratio, by weight Component A: Component B	15 : 85
<b>Cure</b>	Room temperature cure
<b>Application</b>	Potting and Encapsulating

LOCTITE STYCAST US 5544 is a fast gelling, flexible, flame retardant, mineral-filled, polyurethane compound. LOCTITE STYCAST US 5544 is a fast-setting potting compound which is low in viscosity, therefore flows well and adheres well to many substrates. It has very low odor and does not contain TDE or mercury compounds.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A Properties

Density @ 23°C, gm/cc	1.23
Viscosity @ 23 °C, cps	75

### Part B Properties

Density @ 23°C, gm/cc	1.46
Viscosity @ 23 °C, cps	11,000

### Mixed Properties

Density @ 23°C, gm/cc	1.4
Gel Time, minutes	4 to 6
Working Time, minutes	2 to 3
Viscosity @ 23 °C, cps	2,000

## TYPICAL CURING PERFORMANCE Recommended Curing Conditions

2 to 4 hours @ 23 °C (Recommended cure)  
30 minutes @ 60 to 85°C (Alternate cure)

## TYPICAL PROPERTIES OF CURED MATERIAL

### Physical Properties :

Shore Hardness , Durometer A	79 to 89
Coefficient of Thermal Conductivity, W/(m-K)	0.335
Weight Loss after 168 hrs @ 130°C, %	0.19
24 Hour Water Moisture Absorption, %	0.15
Linear Shrinkage, %	0.12
Coefficient of Linear Thermal Expansion, ppm/°C:	
Alpha 1, -40 to 25 °C	114
Alpha 2, 25 to 125 °C	155
Tensile Strength, psi	1,320
Flammability, 9.52mm, 94V-0	Meets rqmrt
Flammability, 6.35mm, 94V-2	Meets rqmrt

### Electrical Properties:

Dielectric Strength, volts/mil	>400
Dielectric Constant / Dissipation Factor @ 25°C:	
100 Hz	3.85 / 0.02
Volume Resistivity, ohms-cm	3.6×10 <sup>13</sup>

**REGULATORY NOTICE:** This product is regulated by the United State Department of Commerce and may not be exported without license from that Organization. See Material Safety Data Sheet for details

## 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.

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Reference 1

# Mouser Electronics

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