

**LOCTITE STYCAST US 5538**

November 2017

**PRODUCT DESCRIPTION**

LOCTITE STYCAST US 5538 provides the following product characteristics:

<b>Technology</b>	Urethane
<b>Color</b>	Black
<b>Components</b>	Two components - requires mixing
<b>Mix Ratio, by volume - Part A: Part B</b>	1 : 3.01
<b>Mixing Ratio, by weight Component A: Component B</b>	30 : 70
<b>Cure</b>	Room temperature cure
<b>Application</b>	Potting and Encapsulating

LOCTITE STYCAST US 5538 is a flexible, unfilled, potting compound. This system provides low viscosity for good flow and good adhesion to many substrates. It is a low odor system designed to be friendly in the work environment. This material can be used to encapsulate load coils, transformers, etc. Sand can be added as an extender that increases thermal conductivity and decreases shrinkage and cost.

**TYPICAL PROPERTIES OF UNCURED MATERIAL****Part A Properties**

Specific Gravity, gm/cc	1.24
Viscosity @ 25 °C, cps	55

**Part B Properties**

Specific Gravity, gm/cc	0.96
Viscosity @ 25 °C, cps	850

**Mixed Properties**

Specific Gravity, gm/cc	1.06
Working Time, 105 g mass, 25 °C, minutes	20 to 40
Gel Time, 105gm mass @ 25 °C, minutes	45 to 75
Viscosity @ 25 °C, cps	450

**TYPICAL CURING PERFORMANCE Recommended Curing Conditions**

24 to 48 hours @ 25 °C (Recommended cure)  
1 to 3 hours @ 60 to 85°C (Alternate cure)

**TYPICAL PROPERTIES OF CURED MATERIAL****Physical Properties :**

Shore Hardness , Durometer A	65
Moisture Absorption, 24 hrs @ 25°C, %	0.2
Weight Loss after 168 hrs @ 125°C, %	0.005
Glass Transition Temperature, °C	-12
Coefficient of Thermal Conductivity, W/(m-K)	0.18

**Electrical Properties:**

Dielectric Strength, volts/mil	955
Dielectric Constant / Dissipation Factor @ 25°C: @ 100 Hz	3.2/0.05
Volume Resistivity, ohms-cm	1.6×10 <sup>15</sup>
Surface Resistivity, ohms @ 25°C	3.1×10 <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.

**DIRECTIONS FOR USE**

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. If color or viscosity discrepancies are noticed, this product should be mixed prior to use in order to ensure the product is homogeneous. Gentle mixing for 5-10 minutes with a paddle or spatula may be needed to re-incorporate any material settled to the bottom of the container.

**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**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{psi} \times 145 = \text{N/mm}^2$

$\text{MPa} = \text{N/mm}^2$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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