

# **LOCTITE STYCAST US 2350**

September 2015

#### PRODUCT DESCRIPTION

LOCTITE STYCAST US 2350 provides the following product characteristics:

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|---|---------------------------------|
| Technology  | Urethane                        |
| Appearance - Part A                                       | Brown                           |
| Appearance - Part B                                       | Black                           |
| Appearance (cured)  | Black                           |
| Components  | Two component - requires mixing |
| Mix Ratio, by volume - Part A: Part B                     | 1:4                             |
| Mixing Ratio,<br>by weight<br>Component A:<br>Component B | 21.2 : 100                      |
| Cure  | Room temperature cure           |
| Application   | Potting and Encapsulating       |

LOCTITE STYCAST US 2350 is a flexible, flame retardant, mineral filled, polyurethane compound. This potting compound has long pot life, and is low viscosity so it flows well and adheres to many substrates. It has very low odor and does not contain TDI or mercury compounds.

## TYPICAL PROPERTIES OF UNCURED MATERIAL Part A Properties

| Density, @ 23 °C, g/cm³          | 1.24 |
|----------------------------------|------|
| Viscosity, Brookfield - RVF, cP: |      |
| Spindle 2, speed 20 rpm          | 55   |

## Part B Properties

| Density, @ 23 °C, g/cm³          | 1.46   |
|----------------------------------|--------|
| Viscosity, Brookfield - RVF, cP: |        |
| Spindle 5, speed 20 rpm          | 13,000 |

### **Mixed Properties**

| Viscosity, Brookfield - RVF, 23 °C, mPa·s (cP): |       |
|---|-------|
| Spindle 2, speed 20 rpm                         | 2,400 |
| Work Life @ 25 °C, 300 gram mass, minutes       | 45    |

#### TYPICAL CURING PERFORMANCE

## **Gel Time**

| Gel @ 23°C, 300 gram mass, minutes | 90  |
|------------------------------------|-----|
| Techne Gel, 140 gram mass, minutes | 103 |

#### **Recommended Curing Conditions**

12 to 24 hours @ 23 °C

#### **Alternate Cure Schedule**

1 to 3 hours @ 65 to 85°C

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

## TYPICAL PROPERTIES OF CURED MATERIAL Physical Properties

| i ilyolodi i roportico                        |        |
|---|--------|
| Density, 23 °C, g/cm³                         | 1.4    |
| Shore Hardness, , Durometer A                 | 85     |
| Coefficient of Thermal Conductivity, W/(m-K)  | 0.51   |
| Linear Shrinkage, %                           | 0.85   |
| 24 Hour Water Moisture Absorption, %          | 0.09   |
| Weight Loss after 168hrs @ 125°C, %           | 0.19   |
| Tensile Strength, psi                         | 476    |
| Tensile Strength, N/mm²                       | 3.28   |
| Flammability, 6.1mm, 94V-2                    | Passes |
| Flammability, 9.53mm, 94V-0 (UL File# E66708) | Passes |
|   |        |

#### **Electrical Properties**

| Dielectric Strength, 20 mil thickness, volts/mil | 954                   |
|--|-----------------------|
| Surface Resistivity, ohms @ 25°C                 | 1.54×10 <sup>15</sup> |
| Volume Resistivity, ohm-cm                       | 6.12×10 <sup>13</sup> |
| Dielectric Constant / Dissipation Factor @ 25°C: |                       |
| 100 Hz   | 6.14 / 0.178          |
| 1 kHz  | 5.06 / 0.132          |
| 100 kHz  | 4.09 / 0.042          |
|  |                       |

#### **GENERAL INFORMATION**

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

### Directions for use

1. LOCTITE STYCAST US 2350 will settle upon storage, especially at temperatures exceeding 27 °C. Refrigerated storage will minimze filler settling. Each container must be thoroughly mixed before combining Part A and Part B. For ease of mixing, store containers upside down. After warming to room temperature, approximately 10 minutes on a standard paint shaker will normally ensure complete dispersion of the filler.

#### 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

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

#### Disclaimer

#### Note:

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Reference 1.2