

# LOCTITE STYCAST US 0146

February 2019

## PRODUCT DESCRIPTION

LOCTITE STYCAST US 0146 provides the following product characteristics:

<b>Technology</b>	Polyurethane
Appearance, Resin (Component A)	Amber
Appearance, Hardener (Component B)	Amber
Appearance (cured)	Amber
Components	Two components - requires mixing
Mixing Ratio, by weight Component A: Component B	100 : 100
Mix Ratio by volume: Part A: Part B	100 : 110
Product Benefits	<ul style="list-style-type: none"> <li>• Unfilled</li> <li>• Low viscosity</li> <li>• Low durometer</li> <li>• Long pot life</li> <li>• Hydrolytic stability</li> </ul>
<b>Cure</b>	Room Temperature or Heat Cure
<b>Application</b>	Potting

LOCTITE STYCAST US 0146 is a casting system formulated for potting.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A Properties

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 2, speed 20 rpm	40
Specific Gravity, @ 25°C, gm/cc	1.07

### Part B Properties

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 2, speed 20 rpm	940
Density @ 25°C, gm/cc	1.07

### Mixed Properties

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 2, speed 20 rpm	205

## TYPICAL CURING PERFORMANCE Recommended Cure

4 to 5 hours @ 85°C

## Alternative Cure Schedule

24 to 28 hours (7 days for full cure)

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 :

Coefficient of Thermal Expansion, ppm/°C:	
Below Tg (-40 to -30°C)	147
Above Tg (40 to 80°C)	230
Glass Transition Temperature (Tg), °C	-21.3
Coefficient of Thermal Conductivity, W/(m-K)	0.2
Shore Hardness, Durometer A	50
Tensile Strength	N/mm <sup>2</sup> 1.3 (psi) (185)
Tensile Modulus	N/mm <sup>2</sup> 1.3 (psi) (195)
Water Absorption wt., %:	
24 hour immersion	0.11
7 day immersion	0.14
Heat Aging, 168 hours @ 100°C:	
Hardness Gain	4
Weight loss, %	0.53
Hydrolytic Stability (7 days boiling water):	
Hardness Loss	7
Weight Gain, %	0.63
Elongation, %	140

### Electrical Properties:

Dielectric Strength 0.02 in thickness, volts/mil	1,175
Dielectric Constant / Dissipation Factor:	
@ 23 °C:	
1 kHz	6.84 / 0.171
10 kHz	5.06 / 0.176
@ 85 °C:	
1kHz	6.45 / 0.26
10 kHz	6.38 / 0.015
Volume Resistivity, ohms-cm:	
@ 23 °C	4.2×10 <sup>13</sup>
@ 85 °C	1.4×10 <sup>12</sup>
Surface Resistivity, ohms:	
@ 23 °C	2.1×10 <sup>14</sup>
@ 85 °C	3.3×10 <sup>12</sup>

## 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.

**DIRECTIONS FOR USE**

1. Storage of LOCTITE STYCAST US 0146 Part A at too low a temperature, even for short periods of time, can result in the formation of solid MDI crystals, which occurs at approximately 15°C. This crystallization should be reversed during the curing of LOCTITE STYCAST US 0146 at 85°C.
2. If desired, crystallization can be removed from LOCTITE STYCAST US 0146 Part A by heating to 60°C for approximately 4 hours (or until crystallization is removed) with stirring and inspection every hour. LOCTITE STYCAST US 0146 Part A can be stirred either by drum rolling or mixing and resealing the drum with a nitrogen purge.
3. Do not heat the drum of LOCTITE STYCAST US 0146 Part A to 70°C, as prolonged exposure to temperatures in excess of 70°C may cause dangerous pressure build-up, resulting in the deformation and/or rupture of sealed containers.
4. To prevent excessive local over-heating, avoid the use of electrical heat tape and open flames when heating this product.

**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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Reference **N/A**

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