

# LOCTITE STYCAST AE 4297

April 2019

## PRODUCT DESCRIPTION

LOCTITE STYCAST AE 4297 provides the following product characteristics:

<b>Technology</b>	Epoxy
Appearance, Resin (Component A)	Tan
Appearance, Hardener (Component B)	Tan
Appearance (cured)	Tan
Components	Two components - requires mixing
Mix Ratio by volume: Part A: Part B	100 : 39
Mix Ratio, by weight - Part A: Part B	100 : 43
<b>Cure</b>	Room temperature or Heat cure
<b>Application</b>	Component assembly, NCA

LOCTITE STYCAST AE 4297 is a general purpose, room temperature cure adhesive.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

### Part A Properties LOCTITE STYCAST AE 4297

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 7, speed 2 rpm	600
Spindle 7, speed 10 rpm	250
Shelf Life @ 25°C (from date of shipment), days	356

### Part B Properties LOCTITE STYCAST HD 3477

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 7, speed 2 rpm	700
Spindle 7, speed 20 rpm	300
Shelf Life @ 25 °C, days	365
Shelf Life @ 25°C (from date of shipment), days	365

### Mixed Properties LOCTITE STYCAST AE 4297 with LOCTITE STYCAST HD 3477

Pot Life @ 25 °C, 100 gm mass, minutes	20
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE

### Recommended Cure Schedule

24 hours @ 25°C

### Alternate Cure Schedule

2 hours @ 60°C

The above cure profile is a guideline recommendation. 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 Linear Thermal Expansion (30 to 90 °C), ppm/°C, 10 <sup>-6</sup>	30.3
Tensile Shear Strength:	
Cure 7 days @ 25°C	1,750
Cure 2 hours @ 60°C	2,300
Linear Shrinkage, %	0.125
Thermal Conductivity, cal x cm/sec x cm <sup>2</sup> x °C, 10 <sup>-4</sup>	10.4
Moisture Absorption, %:	
24 hours immersion	0.14
7 days immersion	0.45

### Electrical Properties

Dissipation Factor:	
1 kHz @ 25°C	6.11
1 kHz @ 110°C	10.6
1 kHz @ 125°C	17.4
Dielectric Constant :	
1 kHz @ 25°C	0.89
1 kHz @ 110°C	0.228
1 kHz @ 125°C	0.606
Volume Resistivity, ohm-cm :	
@ 25°C	3.52×10 <sup>14</sup>
@ 110°C	1.97×10 <sup>12</sup>
@ 125°C	1.16×10 <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.

**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 23°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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