

LOCTITE STYCAST W 66 CAT 17M-1

August 2019

PRODUCT DESCRIPTION

LOCTITE STYCAST W 66 CAT 17M-1 provides the following product characteristics:

Technology	Epoxy
Technology (Catalyst)	Anhydride
Appearance (Resin)	Amber liquid
Appearance (Catalyst)	Tan
Components	Two components - requires mixing
Mix Ratio, (by weight) Resin : Hardener	100 : 40
Mix Ratio, by volume - Base : Hardener	100 : 33.5
Product Benefits	• Medium viscosity • High temperature resistance • Excellent chemical resistance
Cure	Heat Cure
Application	Encapsulation, Potting
Operating Temperature	-20 to +220 °C

LOCTITE STYCAST W 66 CAT 17M-1 is designed for encapsulation and potting of electronic assemblies that are subjected to high temperature exposure.

LOCTITE STYCAST 1090 can be used with a variety of catalysts. For more information on mixed properties when used with other available catalysts, please contact your local technical service representative for assistance and recommendations.

TYPICAL PROPERTIES OF UNCURED MATERIAL**Part A Properties LOCTITE STYCAST W 66**

Viscosity, Brookfield , 25 °C, mPa·s (cP)	12,000
Density, , g/cm ³	1.17
Shelf Life @ 25°C, days	365
Flash Point - See SDS	

Part B Properties LOCTITE CAT 17M-1

Density, , g/cm ³	1.4
Flash Point - See SDS	

Mixed Properties

Mixed Viscosity, mPa·s (cP)	15,000
Density, , g/cm ³	1.23
Working Time, 100 g mass, @ 25°C, hours	>24
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE**Cure Schedule**

3 hours @ 100°C plus 3 hours @ 175°C

For optimum performance, follow the initial cure with a post cure of 2 to 4 hours at the highest expected use temperature.

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**

Hardness, Shore D	85
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Electrical Properties

Dielectric Strength, volts/mil	510
Volume Resistivity @ 25°C, ohm-cm	>1×10 ¹⁴
Dielectric Constant/ Dissipation Factor: @ 1 KHz	4.4/0.004

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. To ensure the long term performance of the potted or encapsulated electrical/electronic assembly, complete cleaning of the substrates should be performed to remove contamination such as dust, moisture, salt, and oils which can cause electrical failure, poor adhesion or corrosion in an embedded part.
2. Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use. Power mixing is preferred to ensure a homogeneous product.
3. Accurately weigh resin and hardener into a clean container in the one of the recommended ratios. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
4. Blend components by hand, using a kneading motion, for 2 to 3 minutes. Scrape the bottom and sides of the mixing container frequently to produce a uniform mixture. If possible, power mix to an additional 2 to 3 minutes. Avoid high mixing speeds which could entrap excessive amounts of air or cause overheating of the mixture resulting in reduced working life.
5. To ensure a void-free embedment, vacuum deairing or degassing should be performed to remove any entrapped air introduced during the mixing operation. Pump-down or pull vacuum on the mixture to achieve an ultimate vacuum or absolute pressure of 1- 5 torr or mmHg. The foam will rise several times the liquid height and then subside. Continue vacuum deairing until most of the bubbling has ceased. This usually requires 3-10 minutes.
6. To facilitate deairing in difficult to deair materials, add 1-3 drops of an air release agent, such as ANTIFOAM 88, into 100 grams of mixture. Gentle warming will also help, but working life will be shortened.
7. To eliminate moisture absorbed in coils, paper, and other insulation components, the part to be impregnated or potted should be preheated to 100-120°C. For coil molding, preheat the components and mold to 70-90°C prior to pouring.
8. This material is not recommended for impregnation of tightly wound components since a portion of the Catalyst consists of fine solid particles which may be filtered out by fine windings, fabric, and paper.

STORAGE:

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 25 °C

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.

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.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb/F}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

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