

LOCTITE STYCAST 926-82-1

January 2018

PRODUCT DESCRIPTION

LOCTITE STYCAST 926-82-1 provides the following product characteristics:

| | |
|------------------------------|--|
| Technology | Epoxy |
| Appearance | Black |
| Cure | Heat cure |
| Product Benefits | <ul style="list-style-type: none">• One component• Good thermal shock resistance• Good chemical resistance• Good thermal conductivity• Low CTE• High temperature properties |
| Operating Temperature | -40 to 180°C |
| Application | Encapsulant |
| Typical Applications | Casting compound |

LOCTITE STYCAST 926-82-1 epoxy encapsulant is designed for use as a casting compound in applications with high temperatures, thermal shock, and chemical exposure.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Brookfield Viscosity , ASTM D2393, cP:

| | |
|--|---------|
| Spindle 6, Speed 5 rpm | 130,000 |
| Density, ASTM D792, g/cm ³ | 1.53 |
| Shelf Life @ 25°C (from date of manufacture), days | 91 |
| Flash Point - See SDS | |

TYPICAL CURING PERFORMANCE

Cure Schedule

- 12 minutes @ 175°C
- 30 minutes @ 160°C
- 150 minutes @ 120°C

This product generates moderate heat during cure. No adverse exotherm effects are obtained when cured at 125°C in masses up to approximately 100 grams.

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, ASTM D2240: | |
| @ 25 °C | 85 |
| @ 120 °C | 35 |
| Linear Shrinkage, ASTM D2566, % | ≤0.01 |

Electrical Properties:

| | |
|---|--------------------|
| Dielectric Strength, ASTM D149, kV/mm | 13.8 |
| Volume Resistivity @ 25 °C, ASTM D257, ohm-cm | 1×10 ¹⁴ |

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Complete cleaning of the components and 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.
3. To ensure a void-free embedment, vacuum deairing or degassing should be performed to remove any entrapped air introduced during the mixing operation.
4. Pump-down or pull vacuum on the mixture to achieve an ultimate vacuum or absolute pressure of 1 to 5 torr or mm Hg. The foam will rise several times in the liquid height and then subside.
5. Continue vacuum deairing until most of the bubbling has ceased. This usually takes 3 to 10 minutes.
6. Pour mixture into cavity or mold.
7. Gentle warming of the mold or assembly reduces the viscosity. This improves the flow of the material into the unit having intricate shapes or tightly packed coils or components.
8. Further vacuum deairing in the mold may be required for critical applications.

STORAGE:

For best results , store in original, tightly covered containers . Storage in cool, clean and dry areas is recommended. Usable shelf life may vary depending on method of application and storage temperature.

Conversions

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

Reference 0.1

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