

LOCTITE STYCAST US 5514

May 2020

PRODUCT DESCRIPTION

LOCTITE STYCAST US 5514 provides the following product characteristics:

Technology	Epoxy
Components	Two components - requires mixing
Appearance - Mixed	Brown
Mix Ratio by weight: Part A: Part B	30 : 70
Mix Ratio by volume: Part A: Part B	1 : 3
Product Benefits	<ul style="list-style-type: none"> • Flexible • Low viscosity • Good adhesion • User Friendly
Cure	Room temperature and Heat cure
Application	Encapsulation and Potting

LOCTITE STYCAST US 5514 flexible, unfilled potting compound is designed to be user friendly in the work environment, as well as, provides low viscosity for good flow. It features a good adhesion to many substrates as it can be used to encapsulate load coils and transformers. Sand can be added as an extender that increases thermal conductivity and decreases shrinkage and cost.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density, g/cc	1.03
Viscosity @ 25 °C, mPa·s (cP)	450
Working Time (200 g mass) @ 25 °C, minutes	20
Shelf Life @ 8 to 28°C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

16 hours @ 25°C

Alternate Cure Schedule

1 to 3 hours @ 60 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

Hardness, Shore A @ 25 °C	70
Glass Transition Temperature (T _g), °C, 25°C	5
Coefficient of Thermal Conductivity, Cal x cm/(sec x cm ² x °C), x 10 ⁻⁴	4.3
Coefficient of Thermal Expansion, μm/(m·°C):	
@ -80 to -60°C	96
@ 60 to 80°C	223
Water Absorption (24 hours), %	0.01
Weight Loss after 168 hrs @ 130°C, %	0.005

Electrical Properties

Dielectric Constant / Dissipation Factor @ 25°C @ 100 kHz	3.2/0.04
Dielectric Strength, 125 mil thickness, volts/mil	1,236
Volume Resistivity, ohm-cm, 10 ¹⁴	5.4
Surface Resistivity, ohms, 10 ¹³	2.6

GENERAL INFORMATION

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

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

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 8 to 28°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

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

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