

LOCTITE STYCAST US 5528

April 2020

PRODUCT DESCRIPTION

LOCTITE STYCAST US 5528 provides the following product characteristics:

Technology	Urethane
Appearance (cured)	White
Components	Two components - requires mixing
Mix Ratio by weight: Part A: Part B	15 : 85
Mix Ratio by volume: Part A: Part B	1 : 4.81
Cure	Room temperature cure
Application	Encapsulating and Potting
Application Areas	<ul style="list-style-type: none"> indoor/outdoor telecommunications equipment circuit boards ballast transformers

LOCTITE STYCAST US 5528 is a flexible, flame retardant, mineral filled, polyurethane compound. This potting compound has long pot life, and is low viscosity so it flows well and adheres well to many substrates. It has very low odor and does not contain TDI or mercury compounds.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, g/cc	1.23
Viscosity @ 25 °C, cps	75
Flash Point - See SDS	

Part B Properties

Density, g/cc	1.46
Viscosity @ 25 °C	11,000
Flash Point - See SDS	

Mixed Properties

Density, g/cc	1.4
Viscosity @ 25 °C, cps	2,000
Working Time, 300 g mass, @ 25 °C, minutes	40 to 50
Gel Time, 300 gm mass @ 25 °C, minutes	70 to 100
Shelf Life (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure

12 to 24 hours @ 25°C

Alternate Cure

1 to 3 hours @ 65 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	84
Moisture Absorption @ 24 hours, %	0.15
Weight Loss after 168 hrs @ 130 °C, %	0.19
Coefficient of Thermal Conductivity, Cal x cm/(sec x cm ² x °C)	16×10 ⁻⁴
Linear Shrinkage, %	0.12
Coefficient of Thermal Expansion, in/in/°C:	
@ -40 to 25°C	1.14×10 ⁻⁴
@ 25 to 125°C	1.55×10 ⁻⁴
Flammability, UL 94:	
@ 6.3 mm	V-2
@ 9.52 mm	V-0
Tensile Strength	N/mm ² 9.1 (psi) (1,320)

Electrical Properties:

Dielectric Constant / Dissipation Factor @ 25°C:	
100 kHz	3.85 / 0.02
Dielectric Strength, 100 mil thickness, volts/mil	>400
Volume Resistivity, ohms-cm	3.6×10 ¹³

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 8 to 28°C or below, in closed containers. If stored below 8 to 28°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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