

LOCTITE STYCAST U 2516 HTR

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PRODUCT DESCRIPTION

LOCTITE STYCAST U 2516 HTR provides the following product characteristics:

Technology	Polyurethane
Appearance - Part A	Black
Appearance - Part B	Amber
Components	Two component - requires mixing
Product Benefits	<ul style="list-style-type: none"> • Two component • Low viscosity • Flexible polyurethane • Low modulus • High temperature resistance
Mix Ratio, by weight - Part A: Part B	100 : 7.8
Cure	Room temperature or Heat cure
Application	Encapsulant
Operating Temperature	-40 to 150°C
Typical Assembly Applications	Transformers, PCB's and other insulation applications

LOCTITE STYCAST U 2516 HTR flexible polyurethane encapsulant is formulated to have low viscosity and excellent wetting properties allowing complete impregnation of either small slightly wound coils or large castings. It can also be used to replace silicones.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Viscosity @ 25 °C, mPa·s (cP)	8,000
Density, g/cm ³	1.475
Flash Point - See SDS	

Part B Properties

Viscosity @ 25 °C, mPa·s (cP)	135
Density, g/cm ³	1.225
Flash Point - See SDS	

Mixed Properties

Viscosity @ 25 °C, mPa·s (cP)	8,000
Density, g/cm ³	1.225
Pot Life @ 25°C, hours	6
Storage Life @ 18 to 25°C, days	182
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

- 24 hours @ 25°C
- 4 hours @ 60°C

Complete cure at room temperature will be obtained after 2 to 3 days.

A post cure of 2 hours @ 100 to 120°C will improve final end-properties.

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	78
Glass Transition Temperature (T _g), °C	-5
Coefficient of Linear Thermal Expansion: Above T _g , ppm/°C	162
Young's modulus (E)	N/mm ² 7 (psi) (1,020)
Tensile Strength	N/mm ² 2 (psi) (290)
Thermal Conductivity, W/(m·K)	0.6
Elongation, %, minimum	50
Moisture Absorption, %:	
After 24 hours @ RT	0.6
After 1 hour @ 100 °C	0.7

Electrical Properties

Volume Resistivity @ 500 Volts, ohms-cm	3.1×10 ¹¹
Surface Resistivity, ohms	1.8×10 ¹³
Dielectric Constant / Dissipation Factor:	
@ 50Hz	7.8/0.96
@ 1 KHz	8.0/0.04
@ 1 MHz	6.3/0.07

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength, :	
Al to Al	N/mm ² 3 (psi) (435)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Mix thoroughly, degas and fill the casting.

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 in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Optimal Storage : 18 to 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.

Conversions

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

Disclaimer

Note:

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