Technical Data Sheet

LOCTITE STYCAST US 2651

February 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST US 2651 provides the following product characteristics:

Technology	Urethane
Appearance, Resin (Component A)	Clear brown
Appearance, Hardener (Component B)	Clear white
Appearance (cured)	Clear amber
Components	Two component - requires mixing
Mix Ratio, by volume - Part A: Part B	1 : 1
Mix Ratio, by weight - Part A: Part B	52.3 : 47.7
Cure	Room temperature cure
Application	PottingEncapsulating

LOCTITE STYCAST US 2651 is an unfilled, low viscosity, reenterable potting and encapsulation compound. It can be used to encapsulate electronics for automotive applications including under-the-hood. The low glass transition temperature means that sensitive components are not damaged during low temperature exposure.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, @ 25 °C, g/cm³	1.0
Viscosity, Brookfield - RVF, 23 °C, cP:	
Spindle 2, speed 20 rpm	130

Part B Properties

Density, @ 25 °C, g/cm³	0.92
Viscosity, Brookfield - RVF, 25 °C, cP:	
Spindle 2, speed 20 rpm	3,200

Mixed Properties

Density, @ 25 °C, g/cm³	0.97
Working Time, 100 g mass, @ 23 °C, minutes	10
Gel Time, 100 gm mass @ @ 23 °C, minutes	25
Viscosity, Brookfield - RVF, 25 °C, cP:	
Spindle 2, speed 20 rpm	1,000

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

16 hours @ 23°C

Alternate Cure Schedule

1 to 2 hours @ 65 to 85°C

The above cure profile is a guideline recommendation. 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

Glass Transition Temperature, °C	-60
Coefficient of Linear Thermal Expansion, ppm/ºC:	
Above Tg (-40 to 125ºC)	197
Shore Hardness , Durometer OO	60
Shore Hardness , Durometer A	15
24 Hour Water Moisture Absorption, %	0.22
Weight Loss after 168hrs @ 105ºC, %	0.47

Electrical Properties

Dielectric Strength, 20 mil thickness, volts/mil	1,050
Volume Resistivity, ohms-cm	5.3×10^{11}
Surface Resistivity, ohms	4.3×10^{12}
Dielectric Constant / Dissipation Factor @ 23ºC:	
1 kHz	4.7 / 0.009
100 kHz	4.5 / 0.022

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.

Note: Before using this product please purge approximately 30 ml. of material prior to application. Discard purged material in accordance with the Material Safety Data Sheet. A video instruction is available upon request.

DIRECTIONS FOR USE

1. This material is susceptible to moisture contamination. After opening a container, a nitrogen blanket should be applied over the material and the container should be resealed immediately after use to help minimize the chance of water ingress.

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 25°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
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

Note:
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