Technical Data Sheet

LOCTITE STYCAST US 0138

March 2018

PRODUCT DESCRIPTION

LOCTITE STYCAST US 0138 provides the following product characteristics:

Technology	Urethane
Appearance - Part A	Brown
Appearance - Part B	Black
Appearance (Mixture)	Black
Mix Ratio, by volume - Part A: Part B	1 : 4
Components	Two components - requires mixing
Mixing Ratio, by weight Component A: Component B	21 : 100
Product Benefits	• Protective coating • Provides environmental protection • Medium hardness • Room temperature cure capability
Cure	Room temperature and Heat cure
Application	Potting and Encapsulating

LOCTITE STYCAST US 0138 is an extended polybutadiene/MDI base encapsulant/sealant formulated for potting electronics or devices for protection against environmental hazards. It exhibits very little hardness increase when cooled to -75ºC.

LOCTITE STYCAST US 0138 meets UL 94 V-0 Flammability rating.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties UA0138

Viscosity @ 25 °C, mPa·s (cP)	90
Density @ 25ºC, gm/cc	0.153

Part B Properties UB0138

Viscosity @ 25 °C, mPa·s (cP)	13,000
Density @ 25ºC, gm/cc	0.177

Mixed Properties US0138

Viscosity @ 25 °C, cps	3,000
Density @ 25ºC, gm/cc	1.46
Working Time, 140 g mass, 25 °C, minutes	40 to 60
Shelf Life @ 25°C (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Gel Time

Gel @ 25ºC, 100 gram mass, minutes	90 to 120

Recommended Cure

24 to 48 hours @ 25 °C

Alternative Cure Schedule

2 to 4 minutes @ 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	60
Coefficient of Thermal Expansion:	
@ -75 to 125ºC, ppm/°C	1.68
Glass Transition Temperature, °C	-60
Coefficient of Thermal Conductivity, W/(m-K)	0.569
Linear Shrinkage, %	<1.0
Moisture Absorption, 24 hrs immersion, %	<0.2

Electrical Properties

Dielectric Strength, @ 0.02" thickness, volts/mil	1,119
Dielectric Constant / Dissipation Factor @ 25ºC:	
1 kHz	5.62 / 0.026
100 kHz	5.12 / 0.049
Dielectric Constant / Dissipation Factor @ 85ºC:	
1 kHz	5.56 / 0.03
100 kHz	5.23 / 0.027
Volume Resistivity, ohm-cm:	
@ 25ºC	2.08×10^{13}
@ 85ºC	5.24×10^{11}
Surface Resistivity, ohms:	
@ 25 °C	1.89×10^{14}
@ 85 °C	4.52×10^{12}

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.

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
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Reference 0.2