Technical Data Sheet

LOCTITE STYCAST US 5534

May 2020

PRODUCT DESCRIPTION

LOCTITE STYCAST US 5534 provides the following product characteristics:

Technology	Urethane
Components	Two components - requires mixing
Appearance - Part A	Clear brown
Appearance - Part B	Opaque white
Appearance - Mixed	Opaque white
Mix Ratio by weight: Part A: Part B	15 : 85
Mix Ratio by volume: Part A: Part B	1 : 4.81
Product Benefits	• Flexible • Low viscosity • Good adhesion
Maximum Operating Temperature	125 to 175ºC
Cure	Room temperature and Heat cure
Application	Encapsulation and Potting

LOCTITE STYCAST US 5534 flexible, flame retardant potting compound is designed for indoor and outdoor telecommunications equipment, as well as, general electronics potting/encapsulating applications such as printed circuit boards or ballast transformers.

LOCTITE STYCAST US 5534 meets UL 94 V-0 & V-2 Flammability rating.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Viscosity @ 25 °C, mPa·s (cP)	75
Density @ 25ºC, g/cc	1.24
Flash Point - See SDS	

Part B Properties

Viscosity @ 25 °C, mPa·s (cP)	14,000
Density @ 25ºC, g/cc	1.46
Flash Point - See SDS	

Mixed Properties

Mixed Viscosity @ 25°C, mPa·s (cP)	2,000
Mixed Density @ 25°C, g/cc	1.4
Working Time (300 g mass) @ 25 °C, minutes	10 to 15
Gel Time (300 g mass) @ 25 °C, minutes	25
Shelf Life @ 8 to 28°C, days	365

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule
2 to 4 hours @ 25°C

Alternate Cure Schedule
1 to 2 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	82
Coefficient of Thermal Conductivity, Cal x cm/(sec x cm² x ºC), x 10^{-4}	8
Coefficient of Thermal Expansion, in/in/°C, x 10^{-4}:	
@ -40 to 25 °C	1.14
@ 25 to 125 °C	1.55
Linear Shrinkage, %	1.25
Thermal Shock , 10 cycles @ -55 to 105ºC	Pass
Water Absorption (24 hr immersion), 25ºC, %	0.15
Weight Loss after 168 hrs @ 130ºC, %	0.19
Flammability, UL 94:	
@ 0.375"	V-0
@ 0.25"	V-2

Electrical Properties

Dielectric Constant / Dissipation Factor @ 25 °C @ 100 kHz	3.85/0.02
Dielectric Strength, volts/mil	405
Volume Resistivity, ohm-cm	3.6×10^{13}

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 as 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 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/F
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

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Reference 1