Technical Data Sheet

LOCTITE STYCAST EE 8200

December 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST EE 8200 provides the following product characteristics:

Technology	Epoxy
Components	Two components - requires mixing
Appearance - Part A LOCTITE STYCAST EE 8200	Black
Appearance - Part B LOCTITE STYCAST EB 363	Green
Mix Ratio by weight: Part A: Part B	100 : 35
Mix Ratio by volume: Part A: Part B	100 : 52
Product Benefits	• Flame retardant • No halogenated chemicals and antimontrioxide • Flexible and temperature cycle resistant • Long pot life • Rapid cure at temperatures above 80ºC • Excellent adhesion to Polycarbonate and thermoplastic polyester housings • High impact strength and crack resistance • Good electrical properties
Cure	Heat cure
Application	Potting
Typical Applications	• Potting and impregnation of transformers and coils in combination with pressure sensitive components • Potting modules and PC-boards • Potting of proximity switches • Potting of hybrids in thermoplastic cases

LOCTITE STYCAST EE 8200 flexible potting system is formulated for inductive component assembly applications. It contains non-abrasive fillers to prevent excessive wear on dispensing equipment.

LOCTITE STYCAST EE 8200 meets the requirements of UL 94 V-O at 1/4 inch thickness. EE 8200 / EB 363 is listed under number E3 4947.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties LOCTITE STYCAST EE 8200

Viscosity, Epprecht Viscometer, 25 °C, mPa·s (cP):	
Spindle D, speed 4 rpm	24,000
Density @ 25ºC, g/cm³	1.63
Filler Content, %	60
Shelf Life @ 25°C, days	365
Flash Point - See SDS	

Part B Properties LOCTITE STYCAST EB 363

Viscosity, Epprecht Viscometer, 25 °C, mPa·s (cP):	
Spindle C, speed 5 rpm	3,000
Density @ 25ºC, g/cm³	1.09
Filler Content, %	0
Shelf Life @ 25ºC , days	365
Flash Point - See SDS	

Mixed Properties

Mixed Viscosity, Epprecht Viscometer, Spindle D, mPa·s (cP):	
@ 25ºC	11,000
@ 50ºC	1,300
@ 75°C	350
Time to double initial viscosity:	
@ 25ºC, hours	8
@ 50ºC, minutes	90
@ 75°C, minutes	30
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Gel Time

@ 80ºC, minutes	90
@ 120ºC, minutes	8

Recommended Cure

6 hours @ 80°C or
3 hours @ 100 °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 D		68
Linear Shrinkage, 15 x 15 x 250 mm specimen, %		1.2
Impact Strength, KJ/m²		45
Flexural Strength @ 1% edge extension	N/mm² (psi)	0.75 (108)
Edge-extension at break, %		14.5
Thermal Conductivity , W/(m-K)		0.48

Electrical Properties

Dielectric Strength, kV/mm:	
@ -40ºC	>67
@ 23ºC	57.8
@ 125°C	25.4
Arc Resistance @ 23 °C, seconds	136
Track Resistance @ 23°C	>600

Volume Resistivity, ohms-cm:	
@ 23 °C	8×10^{13}
@ 80 °C	3×10^{11}
@ 100 °C	1×10^{11}
@ 125 °C	3×10^{10}
Surface Resistivity, ohms :	
@ 23°C	5×10^{14}
@ 80°C	1×10^{12}
@ 100°C	3×10^{11}
@ 125ºC	2×10^{11}
Dielectric Constant @ 10 KHz, (ε):	
@ 23ºC	4.3
@ 80ºC	5.9
@ 100°C	5.9
@ 125°C	5.7
Dissipation Factor @ 10 KHz, (tan δ):	
@ 23ºC	0.032
@ 80ºC	0.049
@ 100°C	0.036
@ 125°C	0.023

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
2. LOCTITE STYCAST EE 8200 may crystallize during prolonged storage if stored below 10°C. If crystallization occurs, preheat between 60 to 100 until liquid..
3. LOCTITE STYCAST EB 363 material is moisture sensitive and may form a crust if exposed to moist air for an extended period of time.
4. Keep in a well sealed container.
5. Do not use metering vessels made of zinc. Suitable are metering vessels made of steel or steel covered with plastic.
6. LOCTITE STYCAST EE 8200 should be de-aired and homogenized (in metering mixer/vessel) between 50 to 100°C at <10 mbar to avoid bubble formation and to ensure good impregnation.
7. LOCTITE STYCAST EB 363 should be de-aired between 30 to 40°C at < 10 mbar.
8. Preheat electrical device housings between 80 to 120ºC.
9. Temperature of mixture (EE 8200 / EB 363) : 50°C - 80°C..
10. Pot the electrical devices under vacuum between 1 to 10 mbar.

STORAGE:

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 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.

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.

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:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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