Technical Data Sheet

LOCTITE STYCAST 1269A

September 2013

PRODUCT DESCRIPTION

LOCTITE STYCAST 1269A provides the following product characteristics:

Technology	Epoxy
Chemical Type (Part A)	Epoxy
Chemical Type (Part B)	Acid anhydride
Appearance, Resin (Component A)	Blue tinted liquid
Appearance, Hardener (Component B)	Slightly yellow liquid
Components	Two components - requires mixing
Mix Ratio, (by weight) Resin : Hardener	100 : 100
Product Benefits	• Optical clarity • Good high temperature performance • Resistance to discoloration
Cure	Heat cure
Typical Assembly Applications	Display embedment, Casting optical lenses and prisms and Encapsulating LEDs

LOCTITE STYCAST 1269A is a two-component crystal clear, heat cured, tough, epoxy encapsulant. This material is resistant to discoloration even after exposure to elevated temperatures up to 120ºC.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties *Part A*

Specific Gravity @ 25ºC	1.17
Viscosity, Cone & Plate, @ 25 °C mPa·s (cP)	10,000
Shelf Life @ 25°C, days	183
Flash Point - See SDS	

Part B Properties *Part B*

Specific Gravity @ 25ºC	1.16
Viscosity, Cone & Plate, @ 25 °C mPa·s (cP)	2,300
Shelf Life @ 25°C, days	91
Flash Point - See SDS	

Mixed Properties

Specific Gravity @ 25ºC	1.16
Viscosity, Cone & Plate, @ 25 °C mPa·s (cP)	3,000
Pot Life, 100 gm mass @ 25ºC, hours	>8
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

16 hours @ 90°C

For optimum performance, a post cure of 4 hours @ 120°C is recommended.

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 AS MIXED

Physical Properties

Hardness, Durometer @ 25ºC		D87
Specific Gravity@ 25ºC, ASTM D792		1.2
Coefficient of Thermal Expansion, , TMA, 1/°C:		
Below Tg		70×10^{-6}
Above Tg		209×10^{-6}
Glass Transition Temperature (Tg) by TMA, °C		67
Flexural strength , @25ºC	N/mm² (psi)	114 (16,534)
Flexural modulus , @25ºC	N/mm² (psi)	2,960 (429,311)
Water Absorption, after 1 hour @ 100ºC, %		0.5
Refractive Index @ 25°C		1.541
Light Transmittance @ 450nm, t=3mm, %		90

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Do not keep product below 0ºC to avoid crystallization.
2. Certain resins and hardeners are prone to crystallization. If crystallization does occur, warm the contents of the shipping container to 50 to 60ºC until all crystals have dissolved. Shipping container must be loosely covered during the warming stage to prevent any pressure build-up.
3. Accurately weigh STYCAST 1269A/A and 1269A/BM (EOC) into a clean container in the recommended ratio.
4. Blend components with spatula (2 to 3 minutes) and scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
5. Power mixing is recommended; however, too high mixing speed may entrap excessive amounts of air or cause overheating of the mixture resulting in reduced pot life.
6. To ensure a void-free embedment, vacuum deairing should be used to remove any entrapped air introduced during the mixing operation.
7. This usually requires 3 to 10 minutes.
8. To facilitate deairing in difficult to deair materials, add a few drops of an air release agent, such as ANTIFOAM 88 into 100 grams of mixture.
9. Gentle warming will also help, but pot life will be shortened.
10. Pour mixture into cavity or mold.
11. Gentle warming of the mold or assembly reduces the viscosity. This improves the flow of the material into the unit having intricate shapes or tightly packed coils or components.
12. Further vacuum deairing in the mold may be required for critical

applications.

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. Storage below 0°C can adversely affect product properties.

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:
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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