Technical Data Sheet

STYCAST 1264

December 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST 1264 provides the following product characteristics:

Technology	Epoxy
Technology (Part B)	Amine
Appearance,Resin (Component A)	Clear light yellow liquid*
Appearance, Hardener (Component B)	Clear liquid
Components	Two components - requires mixing
Mixing Ratio, by weight Component A: Component B	100 : 45
Mixing Ratio, by volume Component A: Component B	100 : 55
Product Benefits	• Low exotherm • Low viscosity • Good thermal shock resistance • Two component • Room temperature cure capability • Good toughness • High impact strength • Flexible • Low stress
Cure	Room Temperature or Heat Cure
Application	Assembly
Typical Assembly Applications	Laminating
Operating Temperature	-65 to 105ºC

LOCTITE STYCAST 1264 cures slightly flexible and virtually stress free. Some darkening of the cured material will occur after long exposure to temperatures above 65ºC or after prolonged exposure to sunlight. LOCTITE STYCAST 1264 is designed for laminating sheets of glass for implosion resistant safety shields for cathode ray tubes and vacuum viewing ports.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties :

Brookfield Viscosity , ASTM D2393 cP	8,500
DensityASTM D792, g/cm³	1.21
Flash Point - See SDS	

Part B Properties :

Brookfield Viscosity ASTM D2393 cP	35
DensityASTM D792, g/cm³	1.0
Flash Point - See SDS	

Mixed Properties :

Working Time, 100 g mass @ 25°C, hours	3
Density, ASTM D792, g/cm³	1.1
Brookfield Viscosity 10 rpm, ASTM D2393 cP	600

TYPICAL CURING PERFORMANCE

Cure Schedule

3 hours @ 65°C
8 hours @ 45°C
48 hours @ 25°C

This product may generate excessive heat if cured in thicknesses greater than 25 mm (1 inch) at a temperature above 25°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, ASTM D2240	78
Coefficient of Thermal Expansion , ASTM D3386: ppm/°C	126
Water Absorption, ASTM D 570 , %	0.8

Electrical Properties:

Dielectric Constant / Dissipation Factor, ASTM D150:	
@ 60Hz	3.7/0.008
@ 1mHz	3.3/0.03
Volume Resistivity @ 25 °C, ASTM D257, ohm-cm	1×10^{15}

TYPICAL PERFORMANCE OF CURED MATERIAL

Flexural strength , ASTM D790:
N/mm² 82.8
(psi) (12,000)

Compressive Strength , ASTM-D695:
N/mm² 75.9
(psi) (11,000)

Tensile Strength, ASTM D412:
N/mm² 65.5
(psi) (9,500)

**Part A material made in Westerlo Belgium, may have a blue appearance due to a historical reformulation in Europe.*

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
3. Blend components by hand, using a kneading motion, for 2 to 3 minutes. Scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
4. If possible, power mix for an additional 2 to 3 minutes. Avoid high mixing speeds. This can entrap excessive amounts of air. It can also cause overheating of the mixture, resulting in reduced working life.
5. To ensure a void-free embedment, vacuum deairing should be used to remove any entrapped air introduced during the mixing operation.
6. Vacuum deair mixture at 1 to 5 mm mercury. The foam will rise several times the liquid height and then subside.
7. Continue vacuum deairing until most of the bubbling has ceased. This usually takes 3 to 10 minutes.
8. To facilitate deairing in difficult to deair materials, add 1 to 3 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.
13. 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.
14. Allow contents to cool to room temperature before continuing.

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 in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C. Storage below 25°C or greater than 25°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/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

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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Reference 2