Technical Data Sheet

LOCTITE STYCAST RE 2038/ HD 3475

February 2020

PRODUCT DESCRIPTION

LOCTITE STYCAST RE 2038/ HD 3475 provides the following product characteristics:

Technology	Epoxy
Appearance,Resin (Component A)	Amber
Appearance, Hardener (Component B)	Amber
Appearance (cured)	Amber
Components	Two components - requires mixing
Product Benefits	• Low viscosity • Excellent electrical and physical properties
Mix Ratio by weight: Part A: Part B	100 : 25
Mix Ratio by volume: Part A: Part B	100 : 26
Cure	Heat cure and Room temperature
Application	Encapsulation and Potting

LOCTITE STYCAST RE 2038/ HD 3475 is a low viscosity, general casting system with excellent electrical and physical properties. It can be used whenever a rigid compound is needed and very low mixed viscosity is critical.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

LOCTITE STYCAST RE 2038

Viscosity, Brookfield - RVF, 25 °C, cps:	
Spindle 2, speed 20 rpm	900
Specific Gravity @ 25 °C	1.17
Color	Gardner 3
Shelf Life @ 25°C, days	365
Flash Point - See SDS	

Part B Properties

LOCTITE STYCAST HD 3475

Viscosity, Brookfield - RVF, 25 °C, cps:	
Spindle 5, speed 4 rpm	5,000
Specific Gravity @ 25 °C	1.1
Color , maximum	Gardner 4
Shelf Life @ 25°C, days	365
Flash Point - See SDS	

Mixed Properties

LOCTITE STYCAST RE 2038 with LOCTITE STYCAST HD 3475

Viscosity @ 25 °C, cps	1,500
Density, gm/cc	1.17
Pot Life, 200 gm mass, @ 25 °C, minutes	25
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

2 hours @ 60°C

Alternate Cure Schedule

24 hours @ 25°C

Peak Exotherm

Peak Exotherm Temperature, 200 gram mass, °C	200

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	85
Coefficient of Linear Thermal Expansion, in/in/ºC x 10^{-6}:	
Below Tg (25 ºC)	85
Above Tg (150ºC)	191
Glass Transition Temperature (Tg), °C	89
Elongation, %	4.98
Heat Deflection Temperature @ 264 psi, ºC	80
Linear Shrinkage, %	1.1
Moisture Absorption, 24 hrs immersion, %	0.2
Thermal Conductivity, cal x cm/sec x cm^2 x ºC	5×10^{-4}
Guide to Operating Class, IEEE °C	105

Electrical Properties:

Dielectric Strength, 10 mil thickness, volts/mil	1,800
Arc Resistance, seconds	105
Volume Resistivity, ohm-cm:	
@ 25 °C	7×10^{16}
@ 105 °C	6×10^{12}
Dielectric Constant / Dissipation Factor:	
@ 25 °C:	
@ 100 Hz	3.9/0.008
@ 1 kHz	4.1/0.017
@ 100 kHz	3.5/0.033
@ 105 °C:	
@ 100 Hz	5.3/0.057
@ 1 kHz	4.9/0.023
@ 100 kHz	4.5/0.027

TYPICAL PERFORMANCE OF CURED MATERIAL

Compressive Strength	N/mm²	261
	(psi)	(37,900)
Flexural Strength	N/mm²	145
	(psi)	(21,100)
Tensile Strength	N/mm²	74.8
	(psi)	(10,850)
IZOD Impact Strength, ft. lbs/inch of notch		0.25

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.

STORAGE:

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

Optimal Storage : 8 to 28 °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.

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.

Trademark usage

Reference 1