

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
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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/°C x 10 ⁻⁶ :	
Below Tg (25 °C)	85
Above Tg (150°C)	191
Glass Transition Temperature (Tg), °C	89
Elongation, %	4.98
Heat Deflection Temperature @ 264 psi, °C	80
Linear Shrinkage, %	1.1
Moisture Absorption, 24 hrs immersion, %	0.2
Thermal Conductivity, cal x cm/sec x cm ² x °C	5x10 ⁻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/mm ²	261
	(psi)	(37,900)
Flexural Strength	N/mm ²	145
	(psi)	(21,100)
Tensile Strength	N/mm ²	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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb/F}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{psi} \times 145 = \text{N/mm}^2$
 $\text{MPa} = \text{N/mm}^2$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

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Reference 1

Americas
+1.888.943.6535

Europe
+32.1457.5611

Asia
+86.21.2891.8000

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