

LOCTITE STYCAST RE 2039/ HD 0183

November 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST RE 2039/ HD 0183 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	<ul style="list-style-type: none"> • Excellent electrical properties • Good physical strength • Low viscosity • Easily pourable at room temperature • High heat distortion • Low shrinkage • Low expansion
Mix Ratio, by volume - Part A: Part B	100 : 59
Mixing Ratio, by weight Component A: Component B	100 : 60
Cure	Heat cure
Application	Potting and Encapsulating

LOCTITE STYCAST RE 2039/ HD 0183 is recommended for casting coils, transformers, and for general purpose casting.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties RE 2039

Viscosity, Brookfield - RVF, 25 °C, cps:	
Spindle 5, speed 10 rpm	10,000 to 16,000
Specific Gravity @ 25 °C	1.16
Shelf Life @ 25°C, months	12
Flash Point - See SDS	

Part B Properties HD 0183

Viscosity, Brookfield - RVF, 25 °C, cps:	
Spindle 2, speed 20 rpm	≥200
Specific Gravity @ 25 °C	1.22
Shelf Life @ 25°C, hours	12
Flash Point - See SDS	

Mixed Properties

Viscosity @ 25 °C, cps	1,500
Pot Life, 200 gm mass, @ 25 °C, hours	8
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

2 hours @ 110°C

Alternate Cure Schedule

1 hour @ 125°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 :

Coefficient of Linear Thermal Expansion, in/in/°C x 10 ⁻⁶ :	
@ 30 to 90°C	93
Thermal Conductivity, cal/cm sec °C x 10 ⁻⁴	6.3
Shore Hardness, , Durometer D	87
Elongation , %	6.0
Flexural strength	N/mm ² 150 (psi) (21,700)
Compressive Strength	N/mm ² 110 (psi) (16,000)
Tensile Strength	N/mm ² 76 (psi) (11,000)
Linear Shrinkage, %	0.53
24 Hour Water Moisture Absorption, %	0.13
Specific Gravity @ °C	1.2

Electrical Properties:

Dielectric Strength, 10 mil thickness, volts/mil	900
Arc Resistance, seconds	113
Dielectric Constant / Dissipation Factor, IEC 60250:	
1kHz @ 25°C	3.0 / 0.005
1kHz @ 130°C	3.2 / 0.007
Volume Resistivity, IEC 60093, Ω·cm:	
@ 25 °C	3×10 ¹⁶
@ 130 °C	8×10 ¹⁴

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.

Liquid Storage - Liquids should be stored at 25°C or below, in closed containers. If stored below 25°C, the material MUST be allowed to come to room temperature, in the sealed container, to avoid moisture contamination.

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

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

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