

LOCTITE STYCAST 2651-40 W1 GOLD CAT 11

May 2019

PRODUCT DESCRIPTION

LOCTITE STYCAST 2651-40 W1 GOLD CAT 11 provides the following product characteristics:

Technology	Epoxy
Appearance (Resin)	Gold
Product Benefits	• Low viscosity • Room temperature cure capability • Can be used with a variety of catalysts
Cure	Room temperature or Heat cure
Application	Potting, Encapsulation
Key Substrates	Metals, Plastics and Ceramics

LOCTITE STYCAST 2651-40 W1 GOLD CAT 11 epoxy encapsulant is designed for general potting and encapsulation applications. When fully cured, the material is readily machined with carbide tools.

LOCTITE STYCAST 2651-40 W 1 with CAT 11 can be used with a variety of catalysts. For more information on mixed properties when used with other available catalysts, please contact your local technical service representative for assistance and recommendations.

TYPICAL UNCURED PROPERTIES

LOCTITE STYCAST 2651-40 W1 GOLD

Viscosity @ 25 °C, mPa·s (cP)	33,000
Density, g/cm ³	1.5
Shelf Life @ 18 to 25°C (from date of manufacture), days	365
Flash Point - See SDS	

TYPICAL UNCURED PROPERTIES AS MIXED

LOCTITE STYCAST 2651-40 W1 GOLD CAT 11

Mix Ratio, Material:Catalyst:	
By Weight	100:10 to 11
Pot Life, hours	4
Flash Point - See SDS	

TYPICAL PROPERTIES OF CURED MATERIAL

LOCTITE STYCAST 2651-40 W1 GOLD with LOCTITE CAT 11

Physical Properties

Hardness, Shore D	87.5
Thermal Conductivity, W/(m·K)	0.5
Compressive Modulus of Elasticity, MPa	5,400
Coefficient of Linear Thermal Expansion, ppm/°C	45

Linear Shrinkage on Cure, %	0.3
Moisture Absorption, 24 hrs immersion, %	0.1
Machinability	Good
Operating temperature, °C	-70 to +175

Electrical Properties

Volume Resistivity, minimum	1×10 ¹³
Dielectric Constant / Dissipation Factor:	
@ 60 Hz	4.7/0.02
@ 1 KHz	4.5/0.01
@ 1 MHz	3.8/0.02
Dielectric Strength, kV/mm	17.7

TYPICAL PERFORMANCE OF CURED MATERIAL

LOCTITE STYCAST 2651-40 W1 GOLD with LOCTITE CAT 11

Miscellaneous

Compressive Strength, MPa	125
Impact Strength, J/cm	1.6

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. LOCTITE STYCAST 2651-40 W1 GOLD CAT 11 with LOCTITE CAT 11 (Elevated Temperature Cure)

1. This method will produce the ultimate in strength properties at high temperature.
2. Mix resin in the shipping container until it is uniform in texture. This will normally require 2 to 5 minutes in 1 or 5 gallon containers.
3. Mix 10 to 11 parts of LOCTITE CAT 11 for each 100 parts of LOCTITE STYCAST 2651-40 W1 GOLD CAT 11.
4. Blend thoroughly.
5. Pot life is about 4 hours.
6. Pour. Use vacuum evacuation only if required (normally this will not be the case). MOLD RELEASE 122S or Teflon coated mold surfaces are adequate for release of the cured material.
7. For castings up to 200 grams, cure can be completed in 2 hours @ 105°C. For larger castings, gel at 75°C or lower, followed by 2 hours @ 105°C.
8. For best high temperature properties, post cure for 4 to 8 hours at 120°C.

STORAGE:

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

Optimal Storage : 18 to 25 °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.

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.

Conversions

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

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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Reference 3