

**LOCTITE STYCAST EO 1058**

September 2017

**PRODUCT DESCRIPTION**

LOCTITE STYCAST EO 1058 provides the following product characteristics:

<b>Technology</b>	Epoxy
Appearance	Black
<b>Cure</b>	Heat cure
<b>Application</b>	Potting and Encapsulating

LOCTITE STYCAST EO 1058 is a one component, epoxy compound that cures at 125°C. LOCTITE STYCAST EO 1058 provides excellent environmental and thermal protection to encapsulated parts. This product is especially suited for use in protecting sensors used in harsh environments such as automotive applications.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):	
Spindle 7, speed 20 rpm	50,000
Filler Content, %	62
Specific Gravity	1.65
Pot Life @ 25 °C, days	10
Shelf Life @ -40°C (from date of manufacture), days	213
Flash Point - See SDS	

**TYPICAL CURING PERFORMANCE**

<b>Gel Time</b>	
Gel @ 121°C, minutes	12
<b>Recommended Cure</b>	

2 hours @ 140°C or  
3 hours @ 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**

<b>Physical Properties</b>	
Glass Transition Temperature (Tg), °C	140
Coefficient of Linear Thermal Expansion:	
Alpha 1, ppm/°C	24
Hardness, Shore D	90
Tensile Modulus	N/mm <sup>2</sup> 4,826 (psi) (700,000)
Flexural Modulus	N/mm <sup>2</sup> 7,860 (psi) (1,140,000)
Thermal Conductivity, W/(m-K)	0.54
Moisture Absorption, 120 hrs PCT @ 15 psi, %	0.78
Elongation, %	1.96

**Electrical Properties**

Dielectric Constant / Dissipation Factor:

@ 25 °C:	
@ 1KHz	4.31/4.94×10 <sup>-3</sup>
@ 10KHz	4.0/4.56×10 <sup>-2</sup>
@ 100KHz	3.77/3.49×10 <sup>-2</sup>
@ 100 °C:	
@ 1KHz	4.27/5.05×10 <sup>-3</sup>
@ 10KHz	3.98/4.11×10 <sup>-2</sup>
@ 100KHz	3.78/3.0×10 <sup>-2</sup>

**TYPICAL PERFORMANCE OF CURED MATERIAL****Miscellaneous**

Flexural Strength	N/mm <sup>2</sup> 83 (psi) (12,000)
Tensile Strength	N/mm <sup>2</sup> 70 (psi) (10,000)

**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.

**DIRECTIONS FOR USE**

1. This product should not be exposed to ambient air for greater than 1 hour prior to cure. Excessive exposure to the moisture in the atmosphere will degrade the cured properties of the material, resulting in impaired thermal and environmental resistance.
2. This product contains fillers that may settle upon prolonged storage. Thoroughly remix before use if there is any indication of filler settle.
3. Store in sealed containers, do not expose uncured material to moisture. If containers are opened, blanket with dry nitrogen before resealing.

**STORAGE:**

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

**Optimal Storage : -40 °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**

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

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