

LOCTITE STYCAST ES 6005

November 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST ES 6005 provides the following product characteristics:

Technology	Epoxy
Appearance, Resin (Component A)	Black
Appearance, Hardener (Component B)	Amber - green
Components	Two components - requires mixing
Mix Ratio, by volume - Part A: Part B	2 : 1
Mixing Ratio, by weight Component A: Component B	100 : 29.5
Cure	Room temperature cure
Application	Potting and Encapsulating

LOCTITE STYCAST ES 6005 is a resilient, low cost, fast gelling, potting compound. Designed for easy 2 to 1 meter-mix-dispense machinery and low abrasion. This material is ideal for potting and encapsulating high volume parts.

UL Classification

Classified by Underwriters Laboratories Inc.® UL 1446 as a potting compound with and without varnish up to a temperature of 180 °C. UL recognized 94HB Flame Retardent to 1.5 mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, @ 25 °C, g/cm³	1.63
Viscosity @ 25 °C, mPa·s (cP)	11,000

Part B Properties

Density, @ 25 °C, g/cm³	0.97
Viscosity @ 25 °C, mPa·s (cP)	170

Mixed Properties

Density, @ 25 °C, g/cm³	1.41
Viscosity @ 25 °C, mPa·s (cP)	1,500
Pot Life @ 25 °C, minutes:	
400 g mass	10
Gel Time @ 25 °C, minutes:	
400 g mass	25

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

16 hours @ 25 °C (Recommended cure)
2 hours @ 66 °C (Alternate cure)

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties :

Glass Transition Temperature, ISO 11357-2, °C	14
Coefficient of Thermal Expansion ASTM D7012, K ⁻¹ :	
Pre Tg (Alpha 1)	47×10 ⁻⁶
Post Tg (Alpha 2)	167×10 ⁻⁶
Coefficient of Thermal Conductivity, ISO 8302, W/(m·K)	0.288
Shore Hardness, ISO 868, Durometer D	70
Water Absorption, ISO 62, %:	
24 hours in water @ 25 °C	0.3
Tensile Strength, ISO 527-2	N/mm² 12.4 (psi) (1,800)

Electrical Properties:

Volume Resistivity, IEC 60093, Ω·cm	4.9×10 ¹³
Surface Resistivity, IEC 60093, Ω	5.4×10 ¹⁴
Arc Resistance, ASTM D495, seconds	87
Dielectric Breakdown Strength IEC 60243-1, kV/mm	38
Dielectric Constant / Dissipation Factor, IEC 60250:	
100 Hz	5.2 / 0.04
1 kHz	5.0 / 0.03
100 kHz	4.5 / 0.03

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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