

LOCTITE STYCAST ES 6005 ES 6010

May 2017

PRODUCT DESCRIPTION

LOCTITE STYCAST ES 6005 ES 6010 provides the following product characteristics:

Technology	Epoxy
Appearance, Resin (Component A)	Black
Appearance, Hardener (Component B)	clear
Appearance (cured)	Black
Components	Two components - requires mixing
Mix Ratio by volume: Part A: Part B	3.1 : 1
Mixing Ratio, by weight Component A: Component B	100 : 20
Cure	Room temperature cure
Application	Potting and Encapsulating

LOCTITE STYCAST ES 6005 ES 6010 is a low viscosity, general purpose potting compound. This mixture forms a resilient, long work time, no blush potting compound with good surface finish and bond strength to most thermoplastics.

UL Classification

Classified by Underwriters Laboratories Inc.® UL-94 "Test for Flammability of Plastic Materials" and meets the requirements of 94HB in a 3.0 mm cross section.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties LOCTITE STYCAST ES 6005

Specific Gravity, gm/cc	1.63
Viscosity @ 25 °C, cP:	
Spindle 5, speed 20 rpm	11,000

Part B Properties LOCTITE STYCAST ES 6010

Specific Gravity, gm/cc	1.0
Viscosity @ 25 °C, cP:	
Spindle 1, speed 20 rpm	180

Mixed Properties

Specific Gravity, gm/cc	1.48
Gel Time, 200 gm mass @ 25 °C, hours	2.5 to 3
Working Time, 200 gm mass, 25 °C, minutes	80 to 100
Viscosity @ 25 °C, cP:	
Spindle 4, speed 2 rpm	1,700

TYPICAL CURING PERFORMANCE (As Mixed)

Recommended Curing Conditions

24 hours @ 25 °C

Alternate Cure Schedule

2 hours @ 66°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 (As Mixed)

Physical Properties :

Shore Hardness, Durometer D	80
Glass Transition Temperature, °C	27
Coefficient of Thermal Expansion, ppm/°C:	
Below Tg, mm/mm°C	44×10 ⁻⁶
Above Tg, mm/mm°C	130×10 ⁻⁶

Electrical Properties:

Dielectric Strength, volts/mil	365
Dielectric Constant / Dissipation Factor @ 25°C:	
0.1 kHz	4.43 / 0.008
1 kHz	4.37 / 0.008
10 kHz	4.31 / 0.01
100 kHz	4.24 / 0.014
Volume Resistivity, ohm-cm	6.03×10 ¹⁴
Insulation Resistance, ohms	1.14×10 ¹³

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.

Note: Before using this product please purge approximately 30 ml. of material prior to application. Discard purged material in accordance with the Material Safety Data Sheet. A video instruction is available upon request.

STORAGE:

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

Optimal Storage: 20 °C to 30 °C. Storage below 20 °C or greater than 30 °C can adversely affect product properties.

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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