

LOCTITE STYCAST US 1750

November 2016

PRODUCT DESCRIPTION

LOCTITE STYCAST US 1750 provides the following product characteristics:

Technology	Urethane
Appearance, Resin (Component A)	clear
Appearance, Hardener (Component B)	clear
Appearance (cured)	clear
Components	Two components - requires mixing
Mix Ratio, by volume - Part A: Part B	1 : 1
Mixing Ratio, by weight Component A: Component B	50.5 : 49.5
Cure	Room temperature cure
Application	Potting and Encapsulating

LOCTITE STYCAST US 1750 elastomeric polyurethane, is a water-white, clear, medical grade, fast gel potting material. It is ideal for blood heat exchanger, dialyzer and oxygenator units.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, @ 25 °C, g/cm ³	1.08
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	350

Part B Properties

Density, @ 25 °C, g/cm ³	1.06
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	370

Mixed Properties

Gel Time, 100 gm mass @ 45 °C, minutes	5 to 7
Drystick Gel 25 gm mass, @ 25 °C, minutes	60 to 70
Viscosity, Brookfield - RVF, 25 °C, cP: Spindle 2, speed 20 rpm	510

TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

16 hours @ 25 °C (Recommended cure)	
1 hour @ 50 °C (Alternate cure)	

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties :

Shore Hardness , Durometer A	78
Density, @ 25 °C, g/cm ³	1.07
Tensile Strength, psi	541
Tensile Elongation, %	198
Glass Transition Temperature, °C	30
Coefficient of Linear Thermal Expansion, ppm/°C:	
Alpha 1, @ -20 to 0 °C	137
Alpha 2, @ 60 to 80 °C	235
Thermal Conductivity , W/(m-K)	0.19

Electrical Properties:

Dielectric Strength, 20 mil thickness, volts/mil	1,292
Surface Resistivity, ohms @ 25°C	5.66×10 ¹³
Volume Resistivity, ohm-cm	1.06×10 ¹³
Dielectric Constant / Dissipation Factor @ 25°C:	
100 Hz	6.41 / 0.072
1 kHz	5.99 / 0.067
100 kHz	5.01 / 0.056

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.

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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