Technical Data Sheet

LOCTITE EO7037

January 2014

PRODUCT DESCRIPTION

LOCTITE EO7037 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	• One component • High flow • Fast curing capability at moderate temperature
Cure	Heat cure
Application	Encapsulant

LOCTITE EO7037 encapsulant is formulated for use in smart card applications. A cavity or potting dam is required for flow control.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Epprecht , 25 °C, mPa·s (cP):	
Spindle 7, Speed 2 rpm	15,000
Specific Gravity, @ 25ºC, g/cm³	1.55
Shelf Life @ -40°C (from date of manufacture), days	365
Pot Life @ 25ºC, day	1
Flash Point - See MSDS	

The criteria for the extinction of shelf life and pot life is when the filler starts to settle (not by increasing ofviscosity). Except the settling there is no change in viscosity even when storing at room temperature forone month.

TYPICAL CURING PERFORMANCE

Gel Time

@ 100°C, minutes	20
@ 120°C, minutes	6

Recommended Cure Schedule

Designed for robust packages which are not sensitive to stress.

6 hours @ 120°C

Alternate Cure Schedule

Designed to minimize shrinkage and warpage

16 hours @ 90°C or

24 hours @ 80°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

All measurements are taken at 25ºC, unless otherwise noted.

Physical Properties

Coefficient of Linear Thermal Expansion, TMA, ppm/ºC:		
Below Tg		45
Above Tg		140
Glass Transition Temperature (Tg) by TMA, °C		115
Thermal Conductivity , W/(m-K)		0.393
Tensile Strength	N/mm² (psi)	55.17 (8,000)
Elongation ,%		1.8
Hardness, Shore D		85

Electrical Properties

Dielectric Constant / Dissipation Factor, IEC 60250:	
@ 1kHz	4.3/0.0084
Arc Resistance, ASTM D495, seconds	180
Volume Resistivity , ohms-cm	6×10^{15}
Surface Resistivity, ohms	1×10^{16}

GENERAL INFORMATION

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

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.

THAWING:

1. Allow container to reach room temperature before use.
2. LOCTITE EO7037 should not be used for casting masses larger than 50 grams. Some variation inlisted values may occur; customer should determine whether cure other than recommended cure abovewill give satisfactory results.

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
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa = N/mm²
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

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