

LOCTITE HYSOL MG 36F-25A

May 2013

PRODUCT DESCRIPTION

LOCTITE HYSOL MG 36F-25A provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	• Good reliability • Low cost
Typical Package Application	Discrete semiconductor devices and Low pin count PDIP
Application	Molding compound
Flammability	UL94 V0

LOCTITE HYSOL MG 36F-25A epoxy based molding compound designed for the encapsulation of discrete semiconductor devices. It can be applied using both conventional and automold equipments.

LOCTITE HYSOL MG 36F-25A meets UL 94 V0 flammability rating at 3mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Hot plate Gel Time @ 177°C, seconds:

Conventional mold	30
Automold	22
Spiral Flow, @ 177°C, cm:	
Conventional mold	76
Automold	71
Shelf Life @ 5°C, days	365

TYPICAL PROCESS DATA

Handling

Preheat Temperature	
Conventional mold	80 to 90
Automold	0 to 4
, °C:	
Conventional mold	80 to 90
Automold	0 to 4
Molding Temperature, °C	175 to 200
Molding Pressure, Kg/cm ²	42 to 85
Transfer Time, seconds:	
Conventional mold	12 to 20
Automold	4 to 8
Curing Time, 3 mm section, seconds:	
Conventional mold:	
@ 175 hours	60 to 90
@ 200 hours	45 to 75
Automold:	
@ 175 hours	30 to 45
@ 200 hours	25 to 40
Post Cure Time @ 175 °C, hours	2 to 6

LOCTITE HYSOL MG 36F-25A has been formulated to provide the best possible moldability and as wide a molding latitude as possible. Although molding and curing conditions will vary from situation to situation, recommended starting ranges are shown above.

TYPICAL PROPERTIES OF CURED MATERIAL

All measurements taken at 21 °C unless otherwise noted. All physical, electrical and analytical measurements taken on specimens cured for 2 minutes @ 177 °C with post cure of 2 hours at 177 °C, unless other wise specified.

Physical Properties

Coefficient of Thermal Expansion, ppm/°C:	
@ 50 to 100°C	19
@ 220 to 240°C	65
Glass Transition Temperature, °C	170
Specific Gravity	1.82
Molded shrinkage, as molded, %	0.4
Flexural Strength, Kg/mm ²	14.1
Flexural Modulus, Kg/mm ²	1,691
Thermal Conductivity, W/(m-K)	0.75
Extractable Ionic Content, ppm:	
Chloride (Cl-)	5
Sodium (Na+)	5
Moisture Absorption, @ 1 Atm steam, %:	
@ 100 hours	0.75
@ 1,000 hours	0.85
Water Extract Data, 20 hour water boil:	
Conductivity, μmhos/cm	60
pH of extract	38

Electrical Properties

Volume Resistivity@ 500 Volts, ohms-cm:	
@ 21 °C	1×10 ¹⁶
@ 100 °C	5×10 ¹⁶
@ 100 hours @ 1 Atm	3×10 ¹⁵

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.

Storage

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

Powder Storage - Powder or preforms should be stored at 10°C or below, in closed containers. After removal from cold storage, the material **MUST** be allowed to come to room temperature, in the sealed container, to avoid moisture contamination. The suggested waiting time for a standard 22 kg pail is 24 hours.

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

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

Disclaimer

Note:

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