

LOCTITE HYSOL MG 15F-MOD2

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PRODUCT DESCRIPTION

LOCTITE HYSOL MG 15F-MOD2 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	• High Tg • Low stress • Green semiconductor grade
Typical Package Application	Asymmetric and Surface mount packages
Application	Molding compound
Flammability	UL94 V0

LOCTITE HYSOL MG 15F-MOD2 epoxy molding compound designed specifically for use in high temperature and high speed RF applications.

LOCTITE HYSOL MG 15F-MOD2 meets UL 94 V0 flammability rating at 6mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Gel Time, seconds	22
Spiral Flow, @ 177°C, cm	90
Shelf Life @ 5°C, days	365

TYPICAL PROCESS DATA

Handling

Preheat Temperature, conventional mold, °C	80 to 110
Molding Temperature, °C	175 to 200
Molding Pressure, kg/mm ²	0.56 to 1.05
Transfer Time, seconds	5 to 12
Curing Time, 3 mm section:	
@ 177°C, seconds	60 to 75
@ 190°C, seconds	45 to 60
Post Cure Time, hours:	
@ 175 °C	8 to 12
@ 190 °C	2 to 4

LOCTITE HYSOL MG 15F-MOD2 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 @ 190 °C with post cure of 2 hours at 190 °C, unless otherwise specified.

Physical Properties

Coefficient of Thermal Expansion, ppm/°C:	
@ 50 to 100°C	14
@ 250 to 260°C	55
Glass Transition Temperature, °C	235
Specific Gravity	1.95
Molded shrinkage, as molded, %	0.17
Flexural Strength	N/mm ² 118 (psi) (17,114)
Flexural Modulus	N/mm ² 16,660 (psi) (2,416,329)
Thermal Conductivity, W/(m-K)	0.84
Extractable Ionic Content, ppm:	
Chloride (Cl ⁻)	6.1
Sodium (Na ⁺)	5.4
Moisture Absorption, 168 hours @ 85°C/85% RH, %	0.37
Water Extract Data, 1.5 hours water boil:	
Conductivity, µmhos/cm	10
pH of extract	4.2

Electrical Properties

Volume Resistivity@ 500 Volts, ohms-cm:	
@ 21 °C	1×10 ¹⁷
@ 100 °C	2.9×10 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.

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 5°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 15 kg carton box 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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Reference 0.1