

LOCTITE HYSOL GR 640HV-LV

September 2015

PRODUCT DESCRIPTION

LOCTITE HYSOL GR 640HV-LV is a Green, transfer mold compound providing the following product characteristics:

Technology	Epoxy
Cure	Heat
Appearance	Black
Filler Type	Fused Silica
pH	5.9
Filler Weight, %	77
Product Benefits	• Green product • RoHS compliant • Low stress • High moldability • High reliability
Application	Mold Compound
Target Package(s)	TO, SMD, SOT
Flammability Rating	UL 94 V0 @ 1/8 inch thickness

LOCTITE HYSOL GR 640HV-LV epoxy molding compound delivers outstanding performance and ease of use. The material is specially engineered to have excellent flow properties and low viscosity to solve wire sweep application issues.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Spiral Flow, @ 175°C, inches	55
Gel Time @ 175°C, seconds	25
Shelf Life @ 5°C, days	183
Specific Gravity	1.86

TYPICAL PROCESS DATA

Handling

Molding Temperature, °C	160 to 200
Molding Pressure, Kg/cm ²	40 to 80
Transfer Time, automold, seconds	5 to 13
Curing Time @ 180 °C, seconds	40 to 100
Hot Hardness, Shore D, @ 175°C, after 90 seconds	80
Post Mold Cure @ 175 °C, hours	2 to 6

LOCTITE HYSOL GR 640HV-LV 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.

Please contact Henkel Technical Service for alternative process parameters if needed.

TYPICAL PROPERTIES OF CURED MATERIAL

All measurements are taken at 175°C, unless otherwise noted.

All physical, electrical and analytical measurements are taken on specimens cured for 120 seconds @ 175°C with post cure of 6 hours @ 175°C, unless otherwise specified.

Physical Properties

Glass Transition Temperature (Tg), °C	152
Coefficient of Thermal Expansion, ppm/°C:	
Below Tg	17
Above Tg	61
Flexural Modulus @ 25 °C	N/mm ² 9,060
	(psi) (1,314,330)
Flexural Strength @ 25°C	N/mm ² 85
	(psi) (12,330)
Moisture Absorption, 24 hours PCT, %	0.38

Application Specific Properties

Volume resistivity @ 21°C, 500 V, Ω-cm	22
Dielectric Constant @ 1 MHz	3.76
Electrical Conductivity, μmhos/cm	28
Extractable Ionic Content, after 20 hours extract, ppm:	
Chloride (Cl-)	16.18
Sodium (Na+)	6.89

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.

Mold Compound materials 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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} = \text{N/mm}^2$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

Reference 0.1

SFG Code: : 1889856

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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