

LOCTITE HYSOL KL-G 500HT

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PRODUCT DESCRIPTION

LOCTITE HYSOL KL-G 500HT provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	• Green product • High thermal conductivity • High moldability • Large operating window
Filler Weight, %	82
Typical Package Application	TO, TO-220F/3PF, HSOP and Full Pack
Application	Molding compound
Flammability	94 V0

LOCTITE HYSOL KL-G 500HT epoxy molding compound delivers outstanding performance and ease of use.

LOCTITE HYSOL KL-G 500HT meets UL 94 V-0 Flammability at 3.175mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Gel Time @ 175 °C, seconds	40
Spiral Flow, @ 175°C, cm	60
Shelf Life: @ 5°C, days	365

TYPICAL PROCESS DATA**Handling**

Preheat Temperature :	
Conventional mold, °C	80 to 100
Automold, seconds	0 to 5
Molding Temperature, °C	165 to 200
Molding Pressure, Kg/cm ²	40 to 100
Transfer Time:	
Conventional mold, seconds	10 to 20
Automold, seconds	4 to 15
Curing Time, @ 175°C, seconds:	
Conventional mold,	60 to 120
Automold,	50 to 100
Post Cure @ 175°C, hours	4 to 6

LOCTITE HYSOL KL-G 500HT 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 25 °C unless otherwise noted. All physical, electrical and analytical measurements taken on specimens cured for 2 minutes @ 175 °C with post cure of 6 hours at 175 °C, unless otherwise specified.

Physical Properties:

Coefficient of Thermal Expansion , ppm/°C:	
Below Tg	20
Above Tg	60
Glass Transition Temperature, °C	175
Specific Gravity	2.2
Molded shrinkage, as molded, %	0.24
Flexural ModulusKg/mm ² :	
@ 25 °C	1,400
Flexural StrengthKg/mm ² :	
@ 25 °C	12
Thermal Conductivity , W/(m-K)	1.92
Water Extract Data, 90 minutes water boil:	
Conductivity, μmhos/cm	46
pH of extract	7
Extractable Ionic Content, ppm:	
Chloride (Cl ⁻)	4
Sodium (Na ⁺)	15

GENERAL INFORMATION

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

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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

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

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Reference 0.2