Technical Data Sheet

LOCTITE HYSOL KL G450S

July 2012

PRODUCT DESCRIPTION

LOCTITE HYSOL KL G450S provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	• Green product • Low stress • High reliability
Filler Weight, %	84
Typical Package Application	SOT, SMX and SOIC
Application	Molding compound
Flammability	94 V-0

LOCTITE HYSOL KL G450S epoxy molding compound contains no bromine, antimony or phosphorus flame retardant. LOCTITE HYSOL KL G450S epoxy molding compound delivers outstanding performance and ease of use.

LOCTITE HYSOL KL G450S meets UL 94 V-0 Flammability at 3.175mm thickness.

TYPICAL PROCESS DATA

Handling

Preheat Temperature :	
Conventional mold, °C	80 to 100
Automold, seconds	0 to 5
Molding Temperature, °C	150 to 180
Molding Pressure, Kg/cm²	40 to 100
Transfer Time:	
Conventional mold, seconds	10 to 25
Automold, seconds	4 to 15
Curing Time, @ 175ºC, seconds:	
Conventional mold,	60 to 120
Automold,	50 to 90
Post Cure @ 175°C, hours	4 to 6

LOCTITE HYSOL KL G450S 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 UNCURED MATERIAL

Gel Time @ 175 °C, seconds	29
Spiral Flow, @ 175°C, cm	100
Shelf Life:	
@ 5ºC, months	6

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 other wise specified.

Physical Properties:

Coefficient of Thermal Expansion , ppm/°C:	
Below Tg	11
Above Tg	45
Glass Transition Temperature, °C	112
Specific Gravity	1.92

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 5ºC 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
(°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/mm^2 x 145 = psi
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

Note
The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation and its affiliates ("Henkel") specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel products. Henkel specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage
All trademarks in this document are trademarks and/or registered trademarks of Henkel in the US and elsewhere.

Reference 0.1