



PRODUCT DESCRIPTION

HYSOL KL G500HT-ST is a green, semiconductor grade mold compound providing the following product characteristics:

Technology	Epoxy
Cure	Heat cure
Appearance	Black
Filler Type	Silica
Filler Weight, %	82±1
Application	Mold Compound
Target Package	TO220 Fullpack
Product Benefits	<ul style="list-style-type: none">• Green product• High thermal conductivity• High moldability• Large operating window
Flammability Rating	UL 94 V0 @ 1/8 inch thickness

HYSOL KL G500HT-ST is a green epoxy-based molding compound especially designed to improve thermal management for semiconductor devices. This material is specifically recommended for isolated Power Transistors, which require high heat dissipation.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Spiral Flow, @175°C, inches	16
Gel Time, @175°C, seconds	23
Shelf Life, @ 5°C, days	183

TYPICAL PROCESS DATA

Handling	Typical Value
Preheat Temperature, conventional mold, °C	70~100
Molding Temperature, °C	170~190
Transfer Pressure, Kg/cm ²	30~70
Transfer Time @ 175°C, seconds	10~30
Hot Hardness, Shore D @ 175 °C, after 90sec	80
Curing Time @ 175 °C, seconds	80-120
Post Mold Cure @ 175 °C, hours	4~8

HYSOL KL G500HT-ST 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 Hysol Huawei Technical Service for alternative process parameters if needed.

TYPICAL PROPERTIES OF CURED MATERIAL

All measurements are taken at 25°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

Property	Typical Value
Glass Transition Temperature, °C: (Tg) via TMA	155
Coefficient of Thermal Expansion, TMA, ppm/°C: Below Tg	20
Above Tg	66
Flexural Modulus @ 25°C	14,475 (N/mm ²)
Flexural Strength @ 25°C	139 (N/mm ²)
DMA Modulus: @ 25 °C	21,775 (N/mm ²)
@ 175 °C	2,658 (N/mm ²)
@ 260 °C	750 (N/mm ²)
Moisture Absorption, 24 hours PCT, %	0.37
Specific Gravity	2.15

Application Specific Properties

Extractable Ionic Content @ 100 °C, after 20 hours' extract, ppm:	
Chloride (Cl ⁻)	29
Sodium (Na ⁺)	4.5
Thermal conductivity @ W/(m-K)	1.77
Volume Resistivity @ 21 °C, 250 V, Ω-cm	5.6×10 ¹⁵
Dielectric Constant @ 1MHz	4.1

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 Hysol Huawei Electronics Co., Ltd. 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.

Optimal Storage: -18°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. Hysol Huawei Electronics Co., Ltd. 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 Hysol Huawei Electronics Co., Ltd. Technical Service or Customer Service Representative.

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 best knowledge and experience of the product as at the date of this TDS.

Hysol Huawei Electronics Co., Ltd. is, 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.

Any liability in respect of the information in the Technical Data Sheet regarding the concerned product is excluded.

