



PRODUCT DESCRIPTION

HYSOL GR 510-HP is a green, semiconductor grade mold compound providing the following product characteristics:

Technology	Epoxy
Cure	Heat cure
Appearance	Black
Filler Type	Silica
Filler Weight, %	88
Application	Mold Compound
Target Package	SOIC, TO, SOT/SOD and other high power devices
Product Benefits	<ul style="list-style-type: none">• Green product• Low stress• Low moisture absorption• Compatible for power IC
Flammability Rating	UL 94 V0 @ 1/8 inch thickness

HYSOL GR 510-HP is a green epoxy-based molding compound especially designed for high power device package applications..

TYPICAL PROPERTIES OF UNCURED MATERIAL

Spiral Flow, @175°C, inches	40
Gel Time, @175°C, seconds	31
Shelf Life, @ 5°C, days	183
Specific Gravity	1.99

TYPICAL PROCESS DATA

Handling	Typical Value
Preheat Temperature, conventional mold, °C	70~90
Molding Temperature, °C	170~190
Transfer Pressure, Kg/cm ²	40~85
Transfer Time @ 175°C, seconds	5~15
Hot Hardness, Shore D @ 175 °C, after 90sec	83
Curing Time @ 175 °C, seconds	70~120
Post Mold Cure @ 175 °C, hours	4~8

HYSOL GR 510-HP 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	116
Coefficient of Thermal Expansion, TMA, ppm/°C: Below Tg	7.5
Above Tg	30.5
Flexural Modulus @ 25°C	20,450 (N/mm ²) 2,966,022 (psi)
Flexural Strength @ 25°C	160 (N/mm ²) 23,206 (psi)
DMA Modulus: @ 25 °C	24,930 (N/mm ²) 3,619,791 (psi)
@ 175 °C	990 (N/mm ²) 143,590 (psi)
@ 260 °C	890 (N/mm ²) 129,085 (psi)
Moisture Absorption, 24 hours PCT, %	0.24

Application Specific Properties

Extractable Ionic Content @ 100 °C, after 20 hours extract, ppm:	
Chloride (Cl-)	6.1
Sodium (Na+)	4.0
Volume Resistivity @ 21 °C, 500 Volts, ohms-cm	20×10 ¹⁵
Dielectric Constant @ 1MHz	3.8

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 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: 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. Hysol Huawei 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

Technical Service Center 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 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. Hysol Huawei 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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