

**HYSOL GR750**Version LMC20079-X1
Sep, 2019**PRODUCT DESCRIPTION****GR750** provides the following characteristics:

| | |
|------------------|---|
| Technology | Epoxy |
| Appearance | Black |
| Cure | Heat Cure |
| Product Benefits | High Tg Low moisture absorption Low viscosity Low stress Good moldability Good adhesion Excellent thermal cycle performance |
| Filler Type | Silica |
| Filler Weight, % | 85±1 |
| Typical Package | High power devices |
| Application | |

GR750 is a technologically advanced green epoxy molding compound designed for high power devices especially for high temperature application with low moisture absorption requirements. It delivers outstanding performance and ease of use. It meets UL 94 V-0 flammability at 1/8 inch thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

| Property | Method & Units | Typical Value |
|------------------|-------------------|---------------|
| Gel time | @175°C,S | 23 |
| Spiral flow | @175°C, inch/cm | 30/76 |
| Specific gravity | g/cm ³ | 1.96 |
| Shelf life | @5°C, days | 183 |

TYPICAL PROCESS DATA

| Handling | Typical Value |
|---|---------------|
| Preheat Temperature, °C | 80 to100 |
| Molding Temperature, °C | 175 to 200 |
| Transfer Pressure, Kgf/cm ² | 40 to 100 |
| Transfer Time, seconds | 6 to 20 |
| Curing Time,3 mm section: @ 190°C, seconds | 90 to 120 |
| Post Mold Cure @ 175 to 190 °C, hours | 4-12 |

GR750 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 room temperature unless otherwise noted. All physical, electrical and analytical measurements taken on specimens cured for 2 minutes @ 175°C with post cure of 4 hours @190°C, unless otherwise specified.

Physical Properties

| Property, Test methods | Description, units | Typical Value |
|---|---|------------------------|
| Coefficient of Linear Thermal Expansion , TMA | Below Tg, ppm/°C Above Tg, ppm/°C | 8 35 |
| Glass Transition Temperature, TMA | °C | 200 |
| Storage Modulus, DMA | @RT, MPa @175 °C, MPa @260 °C, MPa | 25460 19700 1920 |
| Glass Transition temperature, DMA | °C | 206 |
| Flexural Strength | @ 25°C, MPa @ 260°C, MPa | 145 25 |
| Flexural Modulus | @ 25°C,MPa @ 260°C, MPa | 19460 1450 |
| Moisture Absorption % | PCT 24hrs | 0.29% |
| Extractable Ionic Content, 20hrs | Cl ⁻ ,ppm Na ⁺ , ppm Br ⁻ ,ppm | 12 7 0 |
| Electronic Conductivity | µs/cm | 30 |
| Volume Resistance, 500volt | ×10 ¹⁵ Ω.cm | 24 |
| Thermal Conductivity | W/m.k | 0.9 |

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.

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 pail is 24 hours.

Material removed from containers may be contaminated during use. Do not return product to the original container. Hysol Huawei Electronics 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 your local



Technical Service Center or Customer Service Representative.

Conversions

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

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

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

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

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

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

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

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

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

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

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

NOTE

This product is a developmental product. It is not now, and may not be in the future, commercially available. The properties of the uncured material and the physical properties of the cured material have been established as a point of reference only. The information provided in this Lab Data Sheet (LDS) 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 LDS. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.

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 Hysol Huawei Electronics Co., Ltd. patents that may cover such processes or compositions. This product may contain materials that are not regulatory listed on TSCA, EINECs and other global inventories.

Hysol Huawei Electronics Co., Ltd. cannot assume responsibility for the results obtained by others over whose methods Hysol Huawei Electronics Co., Ltd. has 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, Hysol Huawei Electronics Co., Ltd. **specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Hysol's products. Hysol specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.**