



HYSOL GR750 X2

GR750 X2 (LMC20079-0)
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PRODUCT DESCRIPTION

HYSOL GR750 X2 provides the following product 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 Cut Size	75µm
Filler Weight, %	84±1
Typical Package	High power devices
Application	

HYSOL GR750 X2 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	27
Spiral flow	@175°C, inch/cm	45
Specific gravity	g/cm ³	1.94
Shelf life	@5°C, days	183

TYPICAL PROCESS DATA

Handling	Typical Value
Preheat Temperature, °C	80 to 100
Molding Temperature, °C	175 to 200
Transfer Pressure, Kg/cm ²	40 to 100
Transfer Time, seconds	6 to 18
Curing Time, 3 mm section: @ 190°C, seconds	90 to 120
Post Mold Cure @ 175 to 190 °C, hours	6-12

HYSOL GR750 X2 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 @ 190°C with post cure of 6 hours @ 175 °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	9 32
Glass Transition Temperature, TMA	°C	182
Storage Modulus	@ RT, MPa @175°C, MPa @260°C, MPa	23391 8491 1007
Tg by peak of tan δ	°C	182
Moisture Absorption	PCT24hrs,	0.3%
Flexural Strength	@ 25°C, MPa @ 260°C, MPa	169 15
Flexural Modulus	@ 25°C, MPa @ 260°C, MPa	17549 433
Tab pull adhesion, Cu/Ag	PMC, N MSL3, N	429/402 407/357

Application Specific Properties

Extractable Ionic Content, 20hrs	Cl ⁻ , ppm Na ⁺ , ppm	15 5
Electronic Conductivity	µs/cm	20
Volume Resistance, 500volt	× 10 ¹⁵ Ω.cm @ RT @150°C	18 0.016
Thermal Conductivity	W/m.k	0.8
Dielectric Constant/	1MHz	3.7
Dissipation Factor		0.011
Comparative Tracking Index	V	600

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.

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