Laboratory Data Sheet

Hysol GR2710FF

Sep, 2018

PRODUCT DESCRIPTION

Hysol GR2710FF provides the following characteristics:

Technology	Epoxy
Appearance	Gold
Cure	Heat Cure
Product Benefits	Green Product Low stress High Tg High flexural strength Mold at low temperatures Fast cycle time
Filler Type	Silica
Filler Weight, %	84±1
Typical Package Application	Tantalum capacitor

Hysol GR2710FF is a green epoxy molding compound designed for tantalum capacitor especially for conductive polymer type tantalum capcitors. It delivers outstanding performance and ease of use.
Hysol GR2820 meets UL 94 V-0 flammability at 1/4 inch thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Property	Method & Units	Typical Value
Gel time	@175°C,S	13
Spiral flow	@175°C, inch/cm	40/116
Viscosity	@175°C,PaS	30
Specific gravity	g/cm3	1.96
Shelf life	@5°C, days	365

TYPICAL PROCESS DATA

Handling	Typical Value
Preheat Temperature, °C	80 to 95
Molding Temperature, °C	140 to 180
Transfer Pressure, Kgf/cm²	40 to 85
Transfer Time, seconds	6 to 10
Curing Time,3 mm section: @ 175ºC, seconds	45 to 60
Post Mold Cure @ 165 to 190 °C, hours	2~6

Hysol 2710FF 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 **25**°C unless otherwise noted. All physical, electrical and analytical measurements taken on specimens cured for 2 minutes @ 175°C with post cure of 3 hours @165 °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	11 47
Glass Transition Temperature, TMA	°C	160
Flexural Strength	@ 25ºC, MPa	137
Flexural Modulus	@ 25ºC,MPa	17000
Moisture Absorption %	PCT 24hrs	0.47%
Shrinkage,%		0.12%
Extractable Ionic Content, 90min	Cl^-,ppm Na^+, ppm	7.0 6.0
Electronic Conductivity	μs/cm	1.7
Volume Resistance, 500volt	$\times 10^{16}\Omega$.cm	1.1
Dielectric contact	1MHZ	3.86
Dielectric factor	$\times 10^{-3}$	13.4
Thermal conductivity	W/mK	0.8

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 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 -18ºC 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 22 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
(°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/mm² 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
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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