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Technical Data Sheet

HYSOL GR 2811

July 2017

PRODUCT DESCRIPTION

HYSOL GR 2811 provides the following product characteristics:

Technology	Epoxy
Appearance	Golden
Cure	Heat cure
Product Benefits	• Green product • Optimum performance • Thin wall crack resistance • Low stress • Low moisture absorption • High moldability • Fast cycle time • Lasermark capability
Filler Weight, %	85
Typical Package Application	Tantalum capacitor
Application	Molding compound
Flammability	94 V-0

HYSOL GR 2811 epoxy molding compound delivers outstanding performance and ease of use. This material is designed to achieve JEDEC Level 1 requirements, at 260°C reflow temperature.

HYSOL GR 2811 meets UL 94 V-0 Flammability at 6.35mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Gel Time @ 175 °C, seconds	15
Spiral Flow, @ 177°C, inches	34
Shelf Life:	
@ -4ºC, days	183

TYPICAL PROCESS DATA

Handling

Preheat Temperature , °C	80 to 95
Molding Temperature, °C	140 to 180
Transfer Pressure, Kgf/cm²	40 to 85
Transfer Time, seconds	6 to 15
Curing Time, :	
@ 177ºC, seconds	30 to 45
Curing Time, 3 mm section:	
Conventional mold:	
@ 175ºC, seconds	40 to 70
Automold:	
@ 175ºC, seconds	30 to 60
Post Cure @ 175°C, hours	2 to 6

HYSOL GR 2811 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 6 hours at 175 °C, unless other wise specified.

Physical Properties:

Coefficient of Thermal Expansion , ppm/°C:	
Below Tg	13
Above Tg	45
Glass Transition Temperature, °C	162
Specific Gravity	1.96
Molded shrinkage, as molded, %	0.1
Flexural Strength, psi:	
@ 25 °C	20,000
Flexural Modulus, psi:	
@ 25 °C	2.9×10^{6}
Moisture Absorption, %:	
168 hours @ 85ºC/85% RH	0.35
Thermal Conductivity , W/(m-K)	2.7
Water Extract Data, 90 minutes water boil:	
Conductivity, µmhos/cm	2
pH of extract	5.5
Extractable Ionic Content, ppm:	
Chloride (Cl-)	7
Sodium (Na+)	1

Electrical Properties:

Volume Resistivity, ohms-cm, 500 volts:	
@ 25ºC	10×10^{15}

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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.

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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 -4ºC 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 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.
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