



MG15F-35A

July 2017

PRODUCT DESCRIPTION

MG15F-35A provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	<ul style="list-style-type: none"> • Good electrical stability • High temperature stability
Typical Package Application	Power discrete and High voltage rectifier
Application	Molding compound
Flammability	94 V-0

MG15F-35A epoxy molding compound delivers outstanding performance and ease of use. MG15F-35A is an anhydride cured molding compound designed specifically for use in high voltage power applications requiring good electrical stability at high temperature.

MG15F-35A meets UL 94 V-0 Flammability at 3mm thickness.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Gel Time @ 177 °C, seconds	20
Spiral Flow, @ 177°C, cm/in	64/25
Shelf Life:	
@ 5°C, months	12

TYPICAL PROCESS DATA

Handling

Preheat Temperature :	
Conventional mold, °C	77 to 94
Molding Temperature, °C	175 to 200
Molding Pressure, Kg/cm ²	42 to 85
Transfer Time, seconds	6 to 15
Curing Time, 3 mm section:	
@ 175 °C, seconds	60 to 75
@ 190 °C, seconds	45 to 60
Post Cure Time, hours:	
@ 175°C	8 to 12
@ 190°C	2 to 4

MG15F-35A 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 21 °C unless otherwise noted. All physical, electrical and analytical measurements taken on specimens cured for 2 minutes @ 177 °C with post cure of 4 hours at 177 °C, unless otherwise specified.

Physical Properties:

Coefficient of Thermal Expansion, cm/°C :	21×10 ⁻⁶
Below Tg	70×10 ⁻⁶
Above Tg	190
Glass Transition Temperature, °C	1.81
Specific Gravity	0.5
Molded shrinkage, as molded, %	
Flexural Strength Kg/mm ² :	12.33
@ 21 °C	
Flexural Modulus Kg/mm ² :	1,550
@ 21 °C	17×10 ⁴
Thermal Conductivity, CGS units	
Moisture Absorption @ 1Atm steam, %:	0.7
100 hours	0.9
1,000 hours	
Water Extract Data, 1.5 hour water boil:	20
Conductivity, micro mhos pH of extract	4.5
Extractable Ionic Content, ppm:	
Chloride (Cl ⁻)	20
Sodium (Na ⁺)	20

Electrical Properties:

Volume Resistivity, ohms-cm, 500 volts:	
@ 21°C	1.8×10 ¹⁷
100 hours @ 1 Atm	6×10 ¹³
Dielectric Strength, volts/mil	1,400
Dielectric Constant @ 23°C :	
100 Hz	3.98
1 KHz	4.0
100 KHz	3.94
Dielectric Constant @ 200°C :	
100 Hz	4.08
1 KHz	3.99
100 KHz	3.9
Dissipation Factor @ 23°C:	
100 Hz	0.004
1 KHz	0.004
100 KHz	0.008
Dissipation Factor @ 200°C:	
100 Hz	0.021
1 KHz	0.012
100 KHz	0.003

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 Electronics Co., Ltd. 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 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 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 best knowledge and experience of the product as at the date of this TDS. Hysol Huawei Electronics Co., Ltd. is, 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 regarding the concerned product is excluded.