



# Hysol GR300S

June 2019

## PRODUCT DESCRIPTION

Hysol GR300S provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat Cure
Product Benefits	<ul style="list-style-type: none"> <li>• Lower expansion coefficient</li> <li>• Lower stress</li> <li>• Low wire sweep</li> </ul>
Filler Type	Fused silica (Part)
Filler Weight, %	77
Typical Package Application	Photo Coupler, SMX, SOD, BRG, TO, DIP
Application	Molding compound
Flammability	UL94 V-0
Flame Retardant	Silica

Hysol GR300S is a high productivity molding compound, providing with wide operation window. This material has low expansion coefficient and low stress property.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Property	Method	Typical Value
Gel Time	175°C, s	21
Spiral Flow	175°C, cm	84
Shelf Life	5°C, months	12

## TYPICAL PROCESS DATA

### Handling

Preheat Temperature:

Conventional mold, °C	85-90
Automold, seconds	2-5

Molding Temperature, °C 165-180

Molding Pressure, kgf/cm<sup>2</sup> 40-70

Transfer Time:

Conventional mold, seconds	10-25
Automold, seconds	10-15

Curing Time, 175°C:

Conventional mold, seconds	70-90
Automold, seconds	60-80

Curing Time, 175°C, hours 3-4

Hysol GR300S has been formulated to provide the best possible Moldability and as a wide 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 2minutes @175°C with post cure of 6hours at 175°C, unless other wise specified.

### Physical Properties:

Glass Transition Temperature (Tg), °C	169
Coefficient of Thermal Expansion, 10 <sup>-6</sup> cm/cm/°C	
Below Tg	15
Above Tg	52
Specific Gravity	1.90
Molded Shrinkage, as molded, %	0.38
Flexural Strength, 25°C, kgf/mm <sup>2</sup>	14.8
Flexural Modulus, 25°C, kgf/mm <sup>2</sup>	1,300
Thermal Conductivity, w/m.°C	0.70
Moisture Absorption, PCT24hrs, %	0.35
Water Extract Data, 20hrs water boil:	
Conductivity, μ s/cm	22
PH of extract	5.8
Extractable Ionic Content, ppm:	
Chloride (Cl <sup>-</sup> )	10
Sodium (Na <sup>+</sup> )	3

### Electrical Properties:

Volume Resistivity, 25°C, 250volts, 10 <sup>15</sup> Ω .cm,	29
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## 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 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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