



**PRODUCT DESCRIPTION**

HYSOL GR 17 is a green, semiconductor grade mold compound providing the following product characteristics:

<b>Technology</b>	Epoxy
<b>Cure</b>	Heat
<b>Appearance</b>	White
<b>Filler Type</b>	Silica
<b>Filler Weight, %</b>	68%
<b>Application</b>	Mold Compound
<b>Target Package</b>	Photo Coupler
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Green product</li> <li>• High moldability</li> <li>• High adhesion</li> <li>• Low stress</li> </ul>

HYSOL GR 17 is a green epoxy-based molding compound especially designed for Photo Coupler applications..

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

Spiral Flow, @175°C, inches	50
Gel Time, @175°C, seconds	25
Shelf Life, @ 5°C , days	183

**TYPICAL PROCESS DATA**

<b>Handling</b>	<b>Typical Value</b>
Preheat Temperature, conventional mold, °C	70~90
Molding Temperature, °C	165~180
Transfer Pressure, Kg/cm <sup>2</sup>	40~85
Transfer Time @ 175°C, seconds	10~15
Hot Hardness, Shore D @ 175 °C, after 90sec	77
Curing Time @ 175 °C, seconds	60~120
Post Mold Cure @ 175 °C, hours	4~8

HYSOL GR 17 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.

Please contact Hysol Huawei Technical Service for alternative process parameters if needed.

**TYPICAL PROPERTIES OF CURED MATERIAL**

All measurements are taken at 25°C unless otherwise noted.

All physical, electrical and analytical measurements are taken on specimens cured for **120** seconds @ **175°C** with post cure of 6 hours @ **175°C**, unless otherwise specified.

**Physical Properties**

<b>Property</b>	<b>Typical Value</b>
Glass Transition Temperature, °C: (Tg) via TMA	182

Coefficient of Thermal Expansion , TMA, ppm/°C:

Below Tg	25.7
Above Tg	65.9
Flexural Modulus @ 25°C	11786 (N/mm <sup>2</sup> )
Flexural Strength @ 25°C	152 (N/mm <sup>2</sup> )
Moisture Absorption , 24 hours PCT , %	0.46
Specific Gravity	1.75
Withstand Voltage	12.86(MV/m)
Transmissivity	18.5
Shrinkage	0.71

**Application Specific Properties**

Thermal Conductivity, W/(m-K)	0.65
pH of extract @ 100 °C, after 20 hours	4.8
Extractable Ionic Content @ 100 °C, after 20 hours extract, ppm:	
Chloride (Cl-)	12
Sodium (Na+)	6.3
Volume Resistivity @ 21 °C, 500 Volts, ohms-cm	17.67×10 <sup>15</sup>
Dielectric Constant @ 1MHz	3.88

**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 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.

Optimal Storage: 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 or Customer Service Representative.

**Conversions**

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches

$N \times 0.225 = lb$   
 $N/mm \times 5.71 = lb/in$   
 $psi \times 145 = N/mm^2$   
 $MPa = N/mm^2$   
 $N\cdot m \times 8.851 = lb\cdot in$   
 $N\cdot m \times 0.738 = lb\cdot ft$   
 $N\cdot m \times 0.142 = oz\cdot in$   
 $mPa\cdot s = cP$

**Disclaimer**

**NOTE**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product is 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.