

## Raschig Group 3535 Epoxy

Category : Polymer , Thermoset , Epoxy , Epoxy, Molded, Glass Fiber Filler , Filled/Reinforced Thermoset

### Material Notes:

Glass fiber-reinforced epoxy molding compound. Good mechanical strength, very good electrical isolation properties and dimensional stability even at high temperatures. Form: Low dust granulate packed in moisture resistant cartons, Standard carton size: 25 kg palletized in 750 kg loads. Processing: Compression/Transfer/Injection. Applications: Connectors, Thermocouples, Sensors, Resistors, Potentiometers. Information provided by the Raschig Group

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Raschig-Group-3535-Epoxy.php](http://www.lookpolymers.com/polymer_Raschig-Group-3535-Epoxy.php)

| Physical Properties   | Metric                                               | English                                              | Comments                                           |
|-----------------------|------------------------------------------------------|------------------------------------------------------|----------------------------------------------------|
| Specific Gravity      | 1.90 - 2.10 g/cc                                     | 1.90 - 2.10 g/cc                                     | ISO 1183                                           |
| Apparent Bulk Density | 0.850 - 1.00 g/cc                                    | 0.0307 - 0.0361 lb/in <sup>3</sup>                   | ISO 60                                             |
| Water Absorption      | <= 0.10 %<br>@Temperature 23.0 °C,<br>Time 86400 sec | <= 0.10 %<br>@Temperature 73.4 °F,<br>Time 24.0 hour | ISO 62                                             |
| Linear Mold Shrinkage | 0.0030 - 0.0050 cm/cm                                | 0.0030 - 0.0050 in/in                                | (longitudinal) Injection and Compression; ISO 2577 |

| Mechanical Properties   | Metric                                                  | English                                                   | Comments                               |
|-------------------------|---------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|
| Tensile Strength, Yield | 60.0 - 70.0 MPa                                         | 8700 - 10200 psi                                          | Injection and Compression; ISO 527     |
| Modulus of Elasticity   | 15.0 - 18.0 GPa                                         | 2180 - 2610 ksi                                           | Injection and Compression; ISO 527     |
| Flexural Strength       | 120 - 140 MPa                                           | 17400 - 20300 psi                                         | Injection and Compression; ISO 178     |
| Flexural Modulus        | 14.0 - 16.0 GPa                                         | 2030 - 2320 ksi                                           | Injection and Compression; ISO 178     |
| Compressive Strength    | 150 - 200 MPa                                           | 21800 - 29000 psi                                         | ISO 604                                |
| Charpy Impact Unnotched | 0.800 - 1.20 J/cm <sup>2</sup><br>@Temperature 23.0 °C  | 3.81 - 5.71 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | Injection and Compression; ISO 179/1eU |
| Charpy Impact, Notched  | 0.250 - 0.350 J/cm <sup>2</sup><br>@Temperature 23.0 °C | 1.19 - 1.67 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | Injection and Compression; ISO 179/1eA |

| Thermal Properties | Metric                                            | English                                            | Comments    |
|--------------------|---------------------------------------------------|----------------------------------------------------|-------------|
| CTE, linear        | 15.0 - 20.0 µm/m-°C<br>@Temperature 50.0 - 150 °C | 8.33 - 11.1 µin/in-°F<br>@Temperature 122 - 302 °F | ISO 11359-2 |
|                    |                                                   | 4.16 - 5.55 BTU-in/hr-                             |             |

| Thermal Conductivity<br>Thermal Properties  | 0.600 - 0.800 W/m-K<br>Metric                         | ft <sup>2</sup> -°F<br>English                      | ASTM E1461<br>Comments   |
|---------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|--------------------------|
| Deflection Temperature at 1.8 MPa (264 psi) | >= 200 °C                                             | >= 392 °F                                           | Injection; ISO 75-A      |
| Deflection Temperature at 8.0 MPa           | 170 - 190 °C                                          | 338 - 374 °F                                        | Injection; ISO 75-C      |
| Flammability, UL94                          | V-0<br>@Thickness 5.70 mm                             | V-0<br>@Thickness 0.224 in                          |                          |
| Shrinkage                                   | <= 0.050 %<br>@Temperature 110 °C,<br>Time 605000 sec | <= 0.050 %<br>@Temperature 230 °F,<br>Time 168 hour | Post-shrinkage; ISO 2577 |

| Electrical Properties      | Metric                                  | English                                 | Comments       |
|----------------------------|-----------------------------------------|-----------------------------------------|----------------|
| Volume Resistivity         | 1.00e+15 - 1.00e+16 ohm-cm              | 1.00e+15 - 1.00e+16 ohm-cm              | IEC 60093      |
| Surface Resistance         | 1.00e+14 - 1.00e+15 ohm                 | 1.00e+14 - 1.00e+15 ohm                 | IEC 60093      |
| Dielectric Constant        | 4.0 - 6.0<br>@Frequency 1.00e+6 Hz      | 4.0 - 6.0<br>@Frequency 1.00e+6 Hz      | IEC 60250      |
|                            | 5.0 - 7.0<br>@Frequency 100 Hz          | 5.0 - 7.0<br>@Frequency 100 Hz          | IEC 60250      |
| Dielectric Strength        | 0.984 - 1.38 kV/mm                      | 25.0 - 35.0 kV/in                       | IEC 60243-1    |
|                            | 15.0 - 20.0 kV/mm<br>@Thickness 1.00 mm | 381 - 508 kV/in<br>@Thickness 0.0394 in | IEC 60243-1    |
| Dissipation Factor         | 0.010 - 0.030<br>@Frequency 100 Hz      | 0.010 - 0.030<br>@Frequency 100 Hz      | IEC 60250      |
|                            | 0.010 - 0.030<br>@Frequency 1.00e+6 Hz  | 0.010 - 0.030<br>@Frequency 1.00e+6 Hz  | IEC 60250      |
| Comparative Tracking Index | >= 250 V                                | >= 250 V                                | CTI; IEC 60112 |

| Processing Properties | Metric                                    | English                                   | Comments |
|-----------------------|-------------------------------------------|-------------------------------------------|----------|
| Shelf Life            | 6.00 Month<br>@Temperature 15.0 - 25.0 °C | 6.00 Month<br>@Temperature 59.0 - 77.0 °F |          |

| Descriptive Properties      | Value   | Comments           |
|-----------------------------|---------|--------------------|
| Arc Resistance              | 4 Stufe | ASTM D495          |
| Glow wire flammability test | 900/1   | IEC 60695 2-12     |
| Glow wire ignitability test | 900/1   | IEC 60695 2-13     |
| Water Absorption            | <10 mg  | ISO 62; 24h / 23°C |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China