

# Glass Fiber Reinforced, Flame Retardant Grade

**SPESIN<sup>®</sup>**

PBT Compound resin,  
Flame retardant, high flow

| Property                               |                                            | Test Method | Units                       | Value       |
|----------------------------------------|--------------------------------------------|-------------|-----------------------------|-------------|
| <b>Physical</b>                        |                                            |             |                             |             |
| Specific Gravity                       |                                            | ASTM D792   | -                           | 1.63        |
| Shrinkage                              |                                            | ASTM D955   | %                           | 0.7-1.0     |
| Water Absorption                       | 23 °C, Equilibrium 60%RH                   | ASTM D570   | %                           | 0.05        |
| <b>Thermal</b>                         |                                            |             |                             |             |
| Melting Point                          |                                            | ASTM D3418  | °C                          | 224         |
| Heat Deflection Temperature under Load |                                            | ASTM D648   |                             |             |
|                                        | HDT/A 0.45 MPa ( 4.6 kg/cm <sup>2</sup> )  |             | °C                          | 225         |
|                                        | HDT/A 1.82 MPa ( 18.6 kg/cm <sup>2</sup> ) |             | °C                          | 200         |
| Coeff. Of Linear Thermal Expansion     |                                            | ASTM D696   | × 10 <sup>-4</sup> cm/cm·°C | 0.4         |
| Flammability                           |                                            | UL 94       |                             | V0          |
| <b>Mechanical</b>                      |                                            |             |                             |             |
| Tensile Strength                       | 23 °C                                      | ASTM D638   | MPa (kg/cm <sup>2</sup> )   | 132(1350)   |
| Tensile Elongation                     | 23 °C                                      | ASTM D638   | %                           | 5           |
| Flexural Strength                      | 23 °C                                      | ASTM D790   | MPa (kg/cm <sup>2</sup> )   | 206(2100)   |
| Flexural Modulus                       | 23 °C                                      | ASTM D790   | MPa (kg/cm <sup>2</sup> )   | 8826(90000) |
| Notched Izod Impact Strength           | 23 °C                                      | ASTM D256   | J/m (kg cm/cm)              | 78(8)       |
| Rockwell Hardness                      | R scale                                    | ASTM D785   | g/cc                        | 120         |
| <b>Electrical</b>                      |                                            |             |                             |             |
| Arc Resistance                         |                                            | ASTM D495   | sec                         | 110         |
| Dielectric Constant                    |                                            | ASTM D150   | 10 <sup>6</sup> Hz          | 3.7         |
| Dielectric Strength                    |                                            | ASTM D149   | KV/mm                       | 27          |