Veradel® 3330GF is a 30% glass fiber reinforced grade of polyethersulfone (PESU). Adding glass fiber to polyethersulfone substantially increases the rigidity, tensile strength, creep resistance, dimensional stability and chemical resistance of the material, while maintaining most of its other basic characteristics. The combination of structural properties and cost effectiveness make this resin an attractive alternative to metals in many engineering applications.

Veradel® 3330GF PESU is an opaque, grayish material in its natural form. However, it can be readily colored.

This grade was formerly marketed as Gafone™ PESU

Product Description

Veradel® 3330GF PESU is an opaque, grayish material in its natural form. However, it can be readily colored.

This grade was formerly marketed as Gafone™ PESU

General

Material Status • Commercial: Active

Literature 1 • Technical Datasheet

UL Yellow Card 2 • E36098-100036984
• E36098-100168880

Search for UL Yellow Card • Solvay Specialty Polymers • Veradel®

Availability • Africa & Middle East
• Asia Pacific
• Europe
• Latin America
• North America

Filler / Reinforcement • Glass Fiber, 30% Filler by Weight

Features

• Acid Resistant
• Flame Retardant
• Good Adhesion
• Good Chemical Resistance
• Good Creep Resistance
• Good Dimensional Stability
• Good Thermal Stability
• Good Toughness
• High Heat Resistance
• High Rigidity
• High Tensile Strength
• Hydrolysis Resistant
• Medium Flow
• Medium Molecular Weight

Uses

• Appliance Components
• Appliances
• Automotive Electronics
• Batteries
• Business Equipment
• Electrical Parts
• Electrical/Electronic Applications
• Food Service Applications
• Industrial Applications
• Metal Replacement
• Microwave Cookware
• Plumbing Parts
• Valves/Valve Parts

Agency Ratings • NSF 61 3

RoHS Compliance • RoHS Compliant

Appearance • Colors Available
• Opaque

Forms • Pellets

Processing Method • Injection Molding

Physical

Nominal Value Unit Test Method

Specific Gravity 1.58 g/cm³ ASTM D792
Melt Mass-Flow Rate (MFR) (343°C/2.16 kg) 4.5 g/10 min ASTM D1238
Molding Shrinkage - Flow 0.30 % ASTM D955
Water Absorption (24 hr) 0.40 % ASTM D570

Mechanical

Nominal Value Unit Test Method

Tensile Modulus 8620 MPa ASTM D638
Tensile Strength 130 MPa ASTM D638
Tensile Elongation (Break) 1.9 % ASTM D638
Flexural Modulus 8620 MPa ASTM D790
Flexural Strength 179 MPa ASTM D790

Impact

Nominal Value Unit Test Method

Notched Izod Impact 75 J/m ASTM D256

Thermal

Nominal Value Unit Test Method

Deflection Temperature Under Load 1.8 MPa, Unannealed 216 °C ASTM D648

CLTE - Flow 3.1E-5 cm/cm/°C ASTM D696
Veradel® 3330GF
Polyethersulfone
Solvay Specialty Polymers

### Electrical

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (Unit)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Resistivity</td>
<td>&gt; 1.0E+16 ohms·cm</td>
<td>ASTM D257</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>17 kV/mm</td>
<td>ASTM D149</td>
</tr>
<tr>
<td>Dielectric Constant 60 Hz</td>
<td>4.11</td>
<td>ASTM D150</td>
</tr>
<tr>
<td>Dielectric Constant 1 kHz</td>
<td>4.13</td>
<td></td>
</tr>
<tr>
<td>Dielectric Constant 1 MHz</td>
<td>4.17</td>
<td></td>
</tr>
<tr>
<td>Dissipation Factor 60 Hz</td>
<td>1.9E-3</td>
<td>ASTM D150</td>
</tr>
<tr>
<td>Dissipation Factor 1 kHz</td>
<td>1.8E-3</td>
<td></td>
</tr>
<tr>
<td>Dissipation Factor 1 MHz</td>
<td>9.4E-3</td>
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</tbody>
</table>

### Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Rating (0.787 mm)</td>
<td>V-0</td>
<td>UL 94</td>
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</table>

### Injection

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (Unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drying Temperature</td>
<td>149 to 177 °C</td>
</tr>
<tr>
<td>Drying Time</td>
<td>2.5 to 4.0 hr</td>
</tr>
<tr>
<td>Processing (Melt) Temp</td>
<td>343 to 399 °C</td>
</tr>
<tr>
<td>Mold Temperature</td>
<td>149 to 163 °C</td>
</tr>
<tr>
<td>Injection Rate</td>
<td>Fast</td>
</tr>
<tr>
<td>Screw Compression Ratio</td>
<td>2.0:1.0</td>
</tr>
</tbody>
</table>

### Notes

1. These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

2. A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

3. Tested at 82 °C (180 °F) (Commercial Hot). Only products bearing the NSF Mark are Certified.

4. Typical properties: these are not to be construed as specifications.

5. These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.
Where to Buy

Supplier

Solvay Specialty Polymers
Alpharetta, GA USA
Telephone: 800-621-4557
Web: http://www.solvayspecialtypolymers.com/

Distributor

ALBIS Plastic
ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.
Telephone: +49-40-78105-0
Web: http://www.albis.com/
Availability: Ireland, United Kingdom