DESCRIPTION – R-Glass basic stands

- **P109** multi-end rovings are made from R-Glass basic strands (or ends), assembled with no intentional twist. R-Glass provide high mechanical properties.
- **P109** Rovings are coated with a silane based sizing which makes it compatible with most commonly used thermoset resins, typically epoxy ones.
- **P109** Rovings are intended for production of aeronautic composite structures, with exceptional static and fatigue strengths, and high modulus strengths.

BENEFITS

- Boron and fluorine free glass
- High modulus
- High fatigue resistance
- Excellent mechanical and thermal properties
- Easy unwinding
- Very good wet-out and impregnation
- High strand integrity

APPLICATIONS

**P109** Rovings can be used in a large variety of textile processes:

- Filament winding (dry and wet process)
- Unidirectional pre-pregging (dry and wet process)
- Pultrusion
- Weaving (woven or knitted fabrics)
This information and data contained herein is offered solely as a guide in the selection of reinforcement. The information contained in this publication is based on actual laboratory data and field test experience. We believe this information to be reliable, but do not guarantee its applicability to the user’s process or assume any responsibility or liability arising out of its use or performance. The user agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this publication shall not be construed as representations or warranties or as inducements to infringe any patent or violate any law, safety code or insurance regulation.

Owens Corning reserves the right to modify this document without prior notice.

© 2015 Owens Corning. All Rights Reserved.


MultiEndRovings@owenscorning.com
composites.owenscorning.com

P109 HIGH PERFORMANCE R-GLASS
MULTI-END ROVING FOR AERONAUTIC APPLICATIONS

TECHNICAL CHARACTERISTICS (NOMINAL VALUES)

<table>
<thead>
<tr>
<th>Product</th>
<th>Filament Ø (µm)</th>
<th>Linear weight of roving (Tex) ISO 1889</th>
<th>Loss on Ignition (%) ISO 1887</th>
<th>Moisture content (%) ISO 3344</th>
</tr>
</thead>
<tbody>
<tr>
<td>P109 10R 800</td>
<td>10</td>
<td>800</td>
<td>0.48</td>
<td>≤ 0.10</td>
</tr>
<tr>
<td>P109 14R 800</td>
<td>14</td>
<td>800</td>
<td>0.48</td>
<td>≤ 0.10</td>
</tr>
<tr>
<td>P109 14R 1600</td>
<td>14</td>
<td>1600</td>
<td>0.48</td>
<td>≤ 0.10</td>
</tr>
</tbody>
</table>

PACKAGING
Roving are supplied on cardboard tubes for external unwinding. Each bobbin is protected by a polyethylene bag and placed with a centring device in a cardboard box. The pallets are wrapped by a stretched film. Packaging system is not designed for stacking.

<table>
<thead>
<tr>
<th>Product</th>
<th>Roving Ø (mm)</th>
<th>Height (mm)</th>
<th>Net weight (kg)</th>
<th>Layers per pallet</th>
<th>Bobbins per layer</th>
<th>Bobbins per pallet</th>
<th>Pallet dimensions L × W × H (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe manufactured</td>
<td>Internal</td>
<td>External</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P109 10R 800</td>
<td>76</td>
<td>158</td>
<td>270</td>
<td>6.80</td>
<td>3</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>P109 14R 800</td>
<td>76</td>
<td>220</td>
<td>270</td>
<td>5 – 14</td>
<td>3</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>P109 14R 1600</td>
<td>76</td>
<td>220</td>
<td>270</td>
<td>14</td>
<td>3</td>
<td>30</td>
<td>90</td>
</tr>
</tbody>
</table>

LABELING
Each bobbin has a self-adhesive identification label, showing the product reference and the production date.

STORAGE
Unless otherwise specified, it’s recommended to store P109 Roving in their original packaging in a cool dry area. Optimal conditions are temperatures between 15°C and 35°C and humidity between 35% and 65%. If the product is stored at low temperature (below 15°C), it is advisable to condition it in the workshop for at least 24 hours before use, to prevent condensation.

Americas
Owens Corning
Composite Materials, LLC.
One Owens Corning Parkway
Toledo, Ohio 43659
1.800.get.pink™

Europe
Owens Corning
Fiberglas Sprl.
166 Chaussée de la Hulpe
B-1170 Brussels
Belgium
+32 2 674 8211

Asia Pacific
Owens Corning Shanghai Regional Headquarters
Unit 01, 02,05, 39/F,
Pudong Kerry Parkside,
1155 Fang Dian Road, Pudong,
Shanghai, 201204, China
+86-21-6101 9666