DESCRIPTION

- The 973 Multi-End Roving is manufactured from a collection of continuous glass filaments, gathered, without mechanical twist, into multiple bundles. The filaments that make up the bundles are bonded together with a high performance polyester/vinylester compatible silane based sizing.
- The 973 sizing is compatible with polyester/vinylester resin systems as well as some polyurethane resins.
- The 973 Multi-End Roving is also compatible with the polyurethane resins used in the LFI process.
- 973 Roving is produced using Advantex® glass fiber. Advantex® glass fiber combines the electrical and mechanical properties of traditional E-glasses with the corrosion resistance of E-CR glass.

BENEFITS

- Excellent laminate properties
- Low static and fuzz
- Very good flow characteristics
- Excellent runnability
- Good sheet density
- Excellent chop-ability
- Excellent surface quality in low profile SMC
- Excellent surface and wetting in LFI
- Very good wetting characteristics
- Quality and consistency
- Optimum package and pallet weight

APPLICATIONS

973 Multi-End Roving is designed for use in the manufacture of sheet molding compounds for use in door skins, interior and exterior automotive parts and industrial parts.
973 MULTI-END ROVING
FOR INPUT AND CHOPPING

TECHNICAL CHARACTERISTICS (NOMINAL VALUES)
Roving Doffs are square-edged, cylindrical packages which are firmly and evenly wound and have a constant traverse length. The packages are designed to provide a smooth runout, and their geometry is controlled to maintain the desired run out performance. Unless otherwise specified, packages (Doffs) are connected using an 8-way air splice.

<table>
<thead>
<tr>
<th>Linear weight of roving (Tex)</th>
<th>Loss on Ignition (%)</th>
<th>Moisture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200</td>
<td>1.85</td>
<td>≤ 0.03</td>
</tr>
<tr>
<td>4500</td>
<td>1.85</td>
<td>≤ 0.03</td>
</tr>
</tbody>
</table>

PRODUCT AVAILABILITY

<table>
<thead>
<tr>
<th>External diameter (cm/in)</th>
<th>Height (cm/in)</th>
<th>Weight (kg/lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.7 / 11.3</td>
<td>26 / 10.3</td>
<td>19.4 / 42.8</td>
</tr>
<tr>
<td>35.3 / 13.9</td>
<td>26 / 10.3</td>
<td>31.4 / 69.2</td>
</tr>
</tbody>
</table>

PACKAGING
Air Spliced, Tack-Pak® Wrap, Vertical Creel-Pak®, 12 End Run Out

<table>
<thead>
<tr>
<th>Doffs per pallet</th>
<th>Doffs per layer</th>
<th>Number of layers</th>
<th>Pallet dimensions L x W x H (cm)</th>
<th>Approx. net weight* (kg/lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>12</td>
<td>4</td>
<td>120 x 92 x 120</td>
<td>931 / 2055</td>
</tr>
<tr>
<td>48</td>
<td>12</td>
<td>4</td>
<td>142 x 110 x 120</td>
<td>1507 / 3322</td>
</tr>
</tbody>
</table>

LABELING
Each roving doff has a label with the product name and material code plus production date, time and weight. The winding machine used to produce the doff is denoted by a second label with two-three digits. Each pallet had five labels identifying the Product name, description, material code, production date and time along with the gross and net weight of the pallet. One label on the outside of the stretch-wrap on each side plus one label affixed to the vertical cardboard tab holding the tie-in tails which is not lost when the protective stretch-wrap is removed prior to use.

STORAGE
973 Multi-End Roving should be stored dry, in its original packaging. Optimal conditions are temperature between 15 and 35°C and a relative humidity between 35 and 85%. 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. Static stacking of the pallets is possible one over one (1/1), but it is recommended to use a plywood plate between the two pallets in order not to damage the lower pallet. This product must be used within 12 months of delivery.

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