● Description

Manufactured by adding an inorganic filler, talc to polypropylene, Samsung's heat-resistant PP compounds are designed for use in injection molding, and feature highly improved strength and heat-resistance. Produced with a variety of base PPs, such as HIPP (High Isotactic or High Crystalline Polypropylene), SAC's special processing technology results in PP of the highest quality. These products feature superior rigidity and impact strength, long-term heat resistance and anti-static property. Dimensional stability is another plus! These SAC products are widely used in electric and electronic parts, household appliances and automobiles.

● Characteristics

▶ Addition of an inorganic filler, talc enhances heat-resistance and dimensional stability;
▶ Superior strength and impact-resistance;
▶ Superior processability.
Applications

● Electric/electronic products
  - Dish washer and microwave oven parts such as doors, air covers, air ducts;
  - Washing machines parts (such as balances), and TV speaker cabinets;
  - Household goods such as food containers.

Physical Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Test Method</th>
<th>Condition</th>
<th>Units</th>
<th>TB51</th>
<th>TB52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Index</td>
<td>ASTM D1238</td>
<td>230℃, 2.16kg</td>
<td>g/10min</td>
<td>11.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Density</td>
<td>ASTM D1505</td>
<td>-</td>
<td>g/cm³</td>
<td>0.97</td>
<td>1.07</td>
</tr>
<tr>
<td>Tensile Strength at Yield</td>
<td>ASTM D638</td>
<td>-</td>
<td>kg/cm²</td>
<td>350</td>
<td>350</td>
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<tr>
<td>Elongation at Break</td>
<td>ASTM D638</td>
<td>50mm/min</td>
<td>%</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>ASTM D790</td>
<td>5mm/min</td>
<td>kg/cm²</td>
<td>20,000</td>
<td>25,000</td>
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<tr>
<td>Izod Impact Strength</td>
<td>ASTM D256</td>
<td>23℃</td>
<td>kg.cm/cm</td>
<td>5.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Rockwell Hardness</td>
<td>ASTM D785</td>
<td>Rockwell</td>
<td>R-Scale</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>Heat Deflection Temp.</td>
<td>ASTM D648</td>
<td>4.6kg/cm³</td>
<td>℃</td>
<td>130</td>
<td>139</td>
</tr>
<tr>
<td>Shrinkage Ratio</td>
<td>SAC Method</td>
<td>2mm</td>
<td>%</td>
<td>1.2~1.6</td>
<td>1.0~1.4</td>
</tr>
<tr>
<td>Flammability</td>
<td>UL94</td>
<td>-</td>
<td>-</td>
<td>HB</td>
<td></td>
</tr>
</tbody>
</table>

* Data shown above are representative values for reference purposes only, and not to be construed as specifications.

[REV. 2003.12]
General Processing Guide

- Typical Processing Conditions:
  - Feeding zone 180 ∼ 200°C
  - Plasticizing zone 190 ∼ 210°C
  - Metering zone 200 ∼ 220°C
  - Mold temperature 50 ∼ 80°C
  - Screw rpm 30 ∼ 80
  - Injection Pressure 400 ∼ 900 kg/cm²
  - Holding Pressure 600 ∼ 1000 kg/cm²

Actual injection conditions must be adjusted according to the types of injection machines and sizes of parts.

Contacts

- Sales & Marketing
  Tel) 82-2-772-6642~8     Fax) 82-2-772-6618
- Product Information & Technical Services
  Tel) 82-41-660-6191~5     Fax) 82-41-660-6189
  411-1, Dokgod Ri, Daesan Up, Seosan Si, Chung Nam, Korea 356-711