Polypropylene

Borclear™ RB707CF
Polypropylene Random copolymer for Blown Film

Description

Borclear™ RB707CF is a propylene-ethylene copolymer film resin without slip and antiblock additives, suitable for the manufacturing of unoriented film on blown film process.

Borclear™ RB707CF is characterised by:

- High gloss, low haze
- Low sealing initiation temperature
- Good mechanical properties
- Heat sterilisable
- Excellent film appearance

Applications

Borclear™ RB707CF is especially suitable for:

- Transparent packaging film (e.g. FFS)
- Sealing layer in coextrusions
- Textile packaging
- Food packaging
- Lamination film
- Label film
- Technical and protection film

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value*</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Flow Rate (230°C/2.16 kg)</td>
<td>1.5</td>
<td>g/10 min</td>
<td>ISO 1133</td>
</tr>
<tr>
<td>Density</td>
<td>900-910</td>
<td>kg/m³</td>
<td>ISO 1183</td>
</tr>
<tr>
<td>Melting Temperature (DSC)</td>
<td>143-147</td>
<td>°C</td>
<td>ISO 3146</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>800</td>
<td>MPa</td>
<td>ISO 178**</td>
</tr>
<tr>
<td>Vicat softening temp. A50(10N)</td>
<td>125</td>
<td>°C</td>
<td>ISO 306**</td>
</tr>
</tbody>
</table>

* Data should not be used for specification work

** Properties measured on injection moulded specimens, conditioned at 23°C and 50% relative humidity.
**Film Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value*</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength MD</td>
<td>30-50</td>
<td>MPa</td>
<td>ISO 527-3</td>
</tr>
<tr>
<td>TD</td>
<td>35-55</td>
<td>MPa</td>
<td>ISO 527-3</td>
</tr>
<tr>
<td>Tensile modulus MD/TD</td>
<td>750-850</td>
<td>MPa</td>
<td>ISO 527-3</td>
</tr>
<tr>
<td>Strain at break MD/TD</td>
<td>700-800</td>
<td>%</td>
<td>ISO 527-3</td>
</tr>
<tr>
<td>COF, Friction (film/film)</td>
<td>&gt; 0.7</td>
<td>–</td>
<td>ISO 8295</td>
</tr>
<tr>
<td>Gloss (at 20°C)</td>
<td>&gt; 70</td>
<td>%</td>
<td>ASTM D 2457</td>
</tr>
<tr>
<td>Haze</td>
<td>&lt; 8.0</td>
<td>%</td>
<td>ASTM D 1003</td>
</tr>
<tr>
<td>Dynatest Damaging Force</td>
<td>~850</td>
<td>N/mm</td>
<td>ISO 7765-2</td>
</tr>
<tr>
<td>Penetration Energy</td>
<td>~5</td>
<td>J/mm</td>
<td>ISO 7765-2</td>
</tr>
</tbody>
</table>

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** Specific film values evaluated on air cooled blown films, produced with Borealis internal standard conditions with a thickness of 40 µm. When compared to films which were produced under other conditions it should be taken into account that the film properties are strongly dependent on the processing conditions.

**Storage and Handling**

*Borclear™ RB707CF* should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

**Safety**

*Borclear™ RB707CF* is not classified as a dangerous preparation.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

**Recycling**

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

A Safety Data Sheet is available on request. Please contact your Borealis representative for more details on various aspects of safety, recovery and disposal of the product.
Polypropylene
Borclear™ RB707CF

Related Documents
The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product:

Safety Data Sheet, SDS

Liability statements on:
- Compliance to Food Contact Regulations

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