ELITE™ 5815
Enhanced Polyethylene Resin

Overview

ELITE™ 5815 is produced via INSITE™ Technology from Dow. It is an ethylene alpha-olefin resin for monolayer and coextrusion coating that offers excellent low temperature seal initiation, ultimate seal strength, hot tack strength, and good taste and odor performance.

- Monolayer and coextrusion coating for packaging applications
- Coextruded with acid copolymers as a cost effective foil or PET sealant

Complies with:
- U.S. FDA-DMF
- EU, No 10/2011
- U.S. FDA FCN 424
- Canadian HPFB No Objection

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.910 g/cm³</td>
<td>0.910 g/cm³</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Base Density 1</td>
<td>0.910 g/cm³</td>
<td>0.910 g/cm³</td>
<td>Dow Method</td>
</tr>
<tr>
<td>Melt Index (190°C/2.16 kg)</td>
<td>15 g/10 min</td>
<td>15 g/10 min</td>
<td>ASTM D1238</td>
</tr>
</tbody>
</table>

Films

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal Initiation Temperature 2</td>
<td>195 °F</td>
<td>90.6 °C</td>
<td>Dow Method</td>
</tr>
</tbody>
</table>

Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Temperature (DSC)</td>
<td>255 °F</td>
<td>124 °C</td>
<td>Dow Method</td>
</tr>
</tbody>
</table>

Extrusion

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Temperature</td>
<td>550 to 600 °F</td>
<td>288 to 316 °C</td>
<td>Dow Method</td>
</tr>
<tr>
<td>Minimum Coating Thickness</td>
<td>&lt; 0.30 mil</td>
<td>&lt; 7.6 µm</td>
<td>Dow Method</td>
</tr>
<tr>
<td>Minimum Coating Weight</td>
<td>&lt; 4.5 lb/ream</td>
<td>&lt; 7.3 g/m²</td>
<td>Dow Method</td>
</tr>
<tr>
<td>Neck-in (600°F (316°C), 1.0 mil (25.4 µm))</td>
<td>9.3 in</td>
<td>235.0 mm</td>
<td>Dow Method</td>
</tr>
</tbody>
</table>

Extrusion Notes

Fabrication Conditions For Cast Film:
- Extruder: Black Clawson
- Screw Size: 3.5 in. (90 mm); 30:1 L/D
- Die Gap: 20 mil (0.508 mm)
- Chill Roll Temperature: 57°F (14°C)
- Melt Temperature: 600°F (315°C)
- Output: 250 lb/hr
- Air Gap: 6 in. (150 mm)

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

1 Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

2 - Coating onto PET/poly/foil/0.5 mil acid copolymer.
- Temperature at which 1 lb/in (4.4 FN/25.4 mm) heat seal strength is achieved.
- Heat Seal Strengths, Topware HT Tester, 0.5 S dwell, 40 psi bar pressure, 10 in./min. pull speed.
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Additional Information

North America
U.S. & Canada: 1-800-441-4369
Mexico: +1-800-441-4369

Europe/Middle East
Italy: +31-11567-2626

Latin America
Argentina: +54-11-4319-0100
Brazil: +55-11-5188-9000
Colombia: +57-1-219-6000
Mexico: +52-55-5201-4700

South Africa
+800-99-5078

Asia Pacific
+800-7776-7776
+603-7965-5392

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