Overview

DOWLEX™ 2629UE Polyethylene Resin for rotational and injection moulding is specifically designed for applications requiring excellent environmental stress crack resistance and impact strength combined with low warpage and good processing. Processing and Stabilisation: DOWLEX™ 2629UE Polyethylene Resin is fully heat and UV stabilised resulting in a wide processing latitude, good colour retention and long life expectancy. The powder version is named DOWLEX™ 2629.10UE Polyethylene Resin.

Applications:
- Intermediate bulk containers
- Drums for chemicals
- Boats
- Freezer containers
- Fish crates
- Small tanks

Complies with:
- Europe EU-Directive 2002/72/EC
- U.S. FDA CFR 177.1520(c)3.1a

Consult the regulations for complete details.

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.935 g/cm³</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Melt Index (190°C/2.16 kg)</td>
<td>4.0 g/10 min</td>
<td>ISO 1133</td>
</tr>
</tbody>
</table>

Environmental Stress-Cracking Resistance

- 122°F (50°C), 10% Antarox, Compression Molded: 400 hr
- 122°F (50°C), 100% Antarox, Compression Molded: > 1000 hr

Impact Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Stress (Yield, Compression Molded)</td>
<td>2540 psi</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Tensile Strain (Break, Compression Molded)</td>
<td>650 %</td>
<td>ISO 527-2</td>
</tr>
<tr>
<td>Flexural Modulus (Compression Molded)</td>
<td>93500 psi</td>
<td>ISO 178</td>
</tr>
</tbody>
</table>

Impact Energy

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4°F (-20°C), Rotational Molded</td>
<td>48.7 to 64.9 ft·lb</td>
<td>ISO 6603-2</td>
</tr>
<tr>
<td>73°F (23°C), Rotational Molded</td>
<td>39.8 to 53.1 ft·lb</td>
<td>ISO 6603-2</td>
</tr>
</tbody>
</table>

Hardness

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shore Hardness (Shore D, Compression Molded)</td>
<td>57</td>
<td>ISO 868</td>
</tr>
</tbody>
</table>

Thermal Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Deflection Temperature, 66 psi (0.45 MPa), Unannealed</td>
<td>126 °F</td>
<td>ISO 75-2/B</td>
</tr>
<tr>
<td>Vicat Softening Temperature</td>
<td>246 °C</td>
<td>ASTM D1525</td>
</tr>
<tr>
<td>Melting Temperature</td>
<td>255 °C</td>
<td>DSC</td>
</tr>
<tr>
<td>Peak Crystallization Temperature (DSC)</td>
<td>230 °F</td>
<td>DSC</td>
</tr>
</tbody>
</table>

Notes

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

1 Plates of 3-4 mm thickness.
2 Rate B (120°C/h), Loading 1 (10 N)
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This document is intended for use within Europe

Published: 2006-02-17

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