M3804RU/RUP

Product Description

M3804RU/RUP is a linear-low density polyethylene with a balance of impact properties, stiffness, and processability. M3804RU/RUP is suitable for rotational molding of storage tanks and general applications. It contains a medium level of UV stabilizer to give protection for outdoor use.

Typical Application

- Water storage tanks
- Medium to large tanks
- Material handling containers
- Septic tanks

Product Characteristics

- Meet the requirements of U.S.21 CFR F.D.A. regulation Part 177.1520 clauses (C) for food contact use
- Meet Thai industrial standard TIS 816-2538 (1995)
- Good impact properties
- Excellent rigidity
- Broad processing window

Physical properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Test Method</th>
<th>Value*</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Index</td>
<td>ASTM D 1238 @ 190°C, 2.16 kg</td>
<td>4.0</td>
<td>g/10 min</td>
</tr>
<tr>
<td>Density</td>
<td>ASTM D 1505</td>
<td>0.938</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Melting Point</td>
<td>ASTM D 2117</td>
<td>125 (257)</td>
<td>°C (°F)</td>
</tr>
<tr>
<td>Crystallization Point</td>
<td>ASTM D 2117</td>
<td>113 (236)</td>
<td>°C (°F)</td>
</tr>
<tr>
<td>Heat Deflection Temperature (HDT)</td>
<td>ASTM D648</td>
<td>70 (158)</td>
<td>°C (°F)</td>
</tr>
<tr>
<td>Vicat Softening Temperature</td>
<td>ASTM D1525</td>
<td>120 (248)</td>
<td>°C (°F)</td>
</tr>
</tbody>
</table>

Mechanical Properties

- Tensile Strength-at-Yield: ASTM D 638 @ Crosshead speed 50 mm/min 200 (20) kg/cm² (MPa)
- Tensile Strength-at-Break: ASTM D 638 @ Crosshead speed 50 mm/min 180 (18) kg/cm² (MPa)
- Elongation-at-Break: ASTM D 638 @ Crosshead speed 50 mm/min 800 %
- Flexural Modulus: ASTM D 790 @ Crosshead speed 2 mm/min 7000 (700) kg/cm² (MPa)
- Surface Hardness: ASTM D 2240 60 Shore D
- ARM Impact Strength @ -40°C: ARM Method (5 mm rotomolded sample) 19 (70) J/mm (lb-ft)
- Brittleness Temperature: ASTM D 746 <-60 (140) °C (°F)
- UV Resistance Level: ASTM 2565 2

*Value quoted are the result of tests on representative samples, and product supplied in all respects.

Processing Techniques

Molding cycles depend on mold materials and its wall thickness, oven temperature, and shot size. Typical oven temperatures should be set between 250 and 300 °C.

Product Technical Assistance

For technical assistance or further information on this grade or any other products, please contact Technical service engineer.

Product Available Form

- Natural pellet (M3804RU)
- Powder (35 mesh) (M3804RUP)

Product Handling

- 25 kg. bag / Big bag
- 25 kg. bag
- 750 kg big bag

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