XL-PEARL* 31

Description
XL-PEARL 31 blend is for the manufacture of dry silane masterbatches based on porous polymer carriers. XL-PEARL 31 blend is a crosslinking system developed for the manufacture of crosslinked LLDPE low- and medium-voltage cables using the XL-PEARL blend one-step process. It is only available for licensees of the XL-PEARL blend technology.

Key Features and Benefits

- XL-PEARL 31 blend can be used with a wide range of stabilized LLDPE, MDPE and HDPE polyethylene grades for optimum costeffectiveness. This also applies for nonstabilized resin used in association with an antioxidant masterbatch
- A high onset temperature of the silane crosslinking agent improves process stability and minimizes pregrafted/crosslinked particles in the insulation layer

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Light yellow</td>
</tr>
<tr>
<td>Viscosity, mPa s (cP), @ 23°C</td>
<td>2.2</td>
</tr>
<tr>
<td>Specific Gravity, g/cm³, @ 23°C</td>
<td>0.962</td>
</tr>
<tr>
<td>Flash Point, Tag Closed Cup, ASTM D56-79, °C</td>
<td>23</td>
</tr>
</tbody>
</table>

Potential Applications
Manufacturing of XL-PEARL 31 blend masterbatches for the crosslinking of low- and medium-voltage power cables based on stabilized polyethylene resins.

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Patent Status
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Product Safety, Handling and Storage
The Self-Accelerating Decomposition Temperature (SADT) of XL-PEarl 31 blend in 217L drums is predicted to be above 65°C (149°F). However, it is recommended that drums of XL-PEarl 31 blend not be stored or shipped at temperatures above 30°C (86°F), since some degradation of product may occur.

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Processing Recommendations
Recommended resins
XL-PEarl 31 blend can be used either with nonstabilized polyethylene resins and an antioxidant masterbatch or with stabilized cable grade resins. Recommended types are:

- Exxon Escorene LLN 1004YB, in conjunction with a stabilizer masterbatch
- BP 3000 series
- Aspel 1200 - 1600 series

Other polyethylene resins should have the following properties:

<table>
<thead>
<tr>
<th>Type</th>
<th>Melt index (190°C/2.16 kg):</th>
<th>Density:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDPE resins:</td>
<td>0.2 to 0.5 g/10 min.</td>
<td>0.915 to 0.935 g/cm³</td>
</tr>
<tr>
<td>LLDPE resins:</td>
<td>0.5 to 6 g/10 min.</td>
<td>0.900 to 0.935 g/cm³</td>
</tr>
</tbody>
</table>

Limitations
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Contact Information
For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

For literature and technical assistance, visit our website at: www.momentive.com

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