Elvax® resins Product Data Sheet

**Description**

**Product Description**
DuPont™ Elvax® 3165SB is an extrudable ethylene-vinyl acetate copolymer resin available in pellet form for use in conventional extrusion equipment designed to process polyethylene resins.

**Restrictions**

**Material Status**
Commercial: Active

**Typical Characteristics**

**Composition**
18% By Weight Vinyl Acetate comonomer content
Slip additive
Antiblock additive
Thermal Stabilizer: BHT antioxidant

**Applications**
This resin is designed to provide a low temperature heat seal to itself or many other materials commonly used in flexible packaging applications. The melt properties of this resin allow it to be processed on blown film equipment over a wide range of film thickness and blow-up ratios. It can also be co-extruded with a variety of other polymers. This resin is typically used as low temperature seal layer in co-extruded films.

**Typical Properties**

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Density ()</td>
<td>0.94 g/cm³</td>
<td>ASTM D792, ISO 1183</td>
</tr>
<tr>
<td>*Melt Flow Rate (190°C/2.16kg)</td>
<td>0.7 g/10 min</td>
<td>ASTM D1238, ISO 1133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermal</th>
<th>Nominal Values</th>
<th>Test Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Melting Point (DSC)</td>
<td>88 °C (190.4 °F)</td>
<td>ASTM D3418, ISO 3146</td>
</tr>
<tr>
<td>Freezing Point (DSC)</td>
<td>68 °C (154.4 °F)</td>
<td>ASTM D3417, ISO 3146</td>
</tr>
<tr>
<td>Vicat Softening Point</td>
<td>67 °C (152.6 °F)</td>
<td>ASTM D1525, ISO 306</td>
</tr>
</tbody>
</table>

**Processing Information**

*Maximum Processing Temperature*
235 °C (455 °F)

**General Processing Information**
Resin melt temperature should be maintained in the range of 160-185°C (320-365°F) to provide a suitable viscosity and melt strength for blown film extrusion. Higher temperatures may be more appropriate for coextrusion with other grades. Selection of a specific melt temperature will depend on considerations such as desired gauge, height of tower, cooling capacity, extruder hold up time, winding conditions, and other machine variables.

Elvax® can be used in conventional extrusion equipment designed to process polyethylene resins. However, corrosion-protected barrels, screws, adapters, and dies are recommended, since, at sustained melt temperatures above 455°F (235°C), ethylene vinyl acetate (EVA) resins may thermally degrade and release corrosive by-products.

**FDA Status Information**
ELVAX® 3165SB EVA Resin complies with Food and Drug Administration Regulation 21 CFR 177.1350(a)(1) - Ethylene-vinyl acetate copolymers, subject to the limitations and requirements therein. This Regulation describes polymers that may be used in contact with food, subject to the finished food-contact article meeting the extractive limitations under the intended conditions of use, as shown in paragraph (b)(1) of the Regulation, for use in articles that contact food except for articles used for packing or holding food during cooking.
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Regulatory Information

For information on regulatory compliance outside of the U.S.A., consult your local DuPont representative.

Safety & Handling

THE IMPORTANCE OF PROPER HANDLING & STORAGE:

Maintaining proper handling and storage conditions for DuPont™ Elvax® resins is very important to ensure overall product quality and keep the resin in a free-flowing state. If the Elvax® resin is subjected to sunlight, rain or excessive temperatures, then the resin may not process properly or achieve the desired characteristics in the final product.

It is crucial for Elvax® resins to be kept under proper storage and handling conditions because improper storage and handling may cause the resin to “block” (massing of pellets into large clumps that can hinder the ease of material transfer) or lose the ability to flow freely.

Please refer to the Elvax® Handling Guide for additional information.

For additional information on appropriate Handling & Storage of this polymeric resin, please refer to the material Safety Data Sheet.

A Product Safety Bulletin, material Safety Data Sheet, and/or more detailed information on extrusion processing and/or compounding of this polymeric resin for specific applications are available from your DuPont Performance Materials representative.

Regional Centres

DuPont operates in more than 70 countries.
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