## Description

**Product Description**
DuPont™ Elvax® 3128-1 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**
- 9.3 % By Weight Vinyl Acetate comonomer content
- 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 cast or used in coextrusion with a variety of other polymers. This resin is typically used as low temperature seal layer in coextruded 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>0.93 g/cm³</td>
<td>ASTM D792, ISO 1183</td>
</tr>
<tr>
<td>Melt Flow Rate (190°C/2.16kg)</td>
<td>2 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>99°C (210°F)</td>
<td>ASTM D3418, ISO 3146</td>
</tr>
<tr>
<td>Freezing Point (DSC)</td>
<td>83°C (181°F)</td>
<td>ASTM D3418, ISO 3146</td>
</tr>
<tr>
<td>Vicat Softening Point ()</td>
<td>77°C (171°F)</td>
<td>ASTM D1525, ISO 306</td>
</tr>
</tbody>
</table>

## Processing Information

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

**General Processing Information**
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.
Blown Film Processing Information

Resin melt temperature should be maintained in the range of 160-210°C (320-410°F) to provide a suitable viscosity and melt strength for blown film extrusion. Higher temperatures may be more appropriate for co-extrusion 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.

Feed Zone 135°C (275°F)
Second Zone 160°C (320°F)
Third Zone 185°C (365°F)
Fourth Zone 185°C (365°F)
Fifth Zone 185°C (365°F)
Adapter Zone 185°C (365°F)
Die Zone 185°C (365°F)

Cast Film / Sheet Processing

Resin melt temperature should be maintained in the range of 185-235°C (365-455°F) to provide a suitable viscosity and melt strength for cast film / sheet extrusion. Selection of a specific melt temperature will depend on considerations such as desired gauge, cooling capacity, extruder hold up time, winding conditions, and other machine variables.

Feed Zone 135°C (275°F)
Second Zone 160°C (320°F)
Third Zone 185°C (365°F)
Fourth Zone 210°C (410°F)
Fifth Zone 210°C (410°F)
Adapter Zone 210°C (410°F)
Die Zone 210°C (410°F)

FDA Status Information

ELVAX® 3128-1 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.

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Safety & Handling

For 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 Packaging and Industrial Polymers representative.

Read and Understand the Material Safety Data Sheet (MSDS) before using this product
following regional customer contact centers:

**Americas**
DuPont Company  
Chestnut Run Plaza – Bldg. 730  
974 Centre Road  
Wilmington, Delaware  
19805 U.S.A.  
Toll-Free (USA): 1-800-628-6208  
Telephone: 1-302-774-1000  
Fax: 1-302-355-4013

**Asia Pacific**
DuPont China Holding Co., Ltd.  
Shanghai Branch  
399 Keyuan Road, Bldg. 11  
Zhangjiang Hi-Tech Park  
Pudong New District, Shanghai  
P.R. China (Postcode: 201203)  
Telephone +86 21 3862 2888  
Fax +86-21-3862-2889

**Europe / Middle East / Africa**
DuPont de Nemours Int’l. S.A.  
2, Chemin du Pavillon Box 50  
CH-1218 Le Grand Saconnex  
Geneva, Switzerland  
Telephone +41 22 717 51 11  
Fax +41 22 717 55 00

DuPont do Brasil, S.A.  
Alameda Itapecuru, 506  
06454-080 Barueri, SP Brasil  
Telephone: +55 11 4166 8000  
Fax: +55 11 4166 8736

http://elvax.dupont.com

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This data sheet is effective as of 07/02/2011 01:18:36 PM and supersedes all previous versions.