

DuPont™ Elvax® 3178Z

Elvax® resins Product Data Sheet

Description

Product Description DuPont™ Elvax® 3178Z 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 20% By Weight Vinyl Acetate comonomer content
Thermal Stabilizer: non-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 or cast and cast coextrusion film equipment over a wide range of line speeds and film thicknesses. It can also be coextruded with a variety of other polymers. This resin is typically used as a low temperature seal layer in coextruded films.

Typical Properties

Physical	Nominal Values	Test Method(s)	
*Density ()	0.94 g/cm ³	ASTM D792	ISO 1183
*Melt Flow Rate (190°C/2.16kg)	20 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	81 °C (177.8 °F)	ASTM D3418	ISO 3146
Freezing Point (DSC)	57 °C (134.6 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ()	50 °C (122 °F)	ASTM D1525	ISO 306

Processing Information

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

General Processing Information 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 extrusion coating. Selection of a specific melt temperature will depend on considerations such as coating thickness, substrate type, adhesion desired, line speed, and other machine variables. Priming is usually required to achieve the best adhesion to transparent or smooth substrates. To obtain the best chill roll release characteristics, matte finish chill rolls are recommended. However, if a gloss chill roll is required, the release additives will help prevent sticking.

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® 3178Z 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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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.

For help finding a local representative, please contact one of the following regional customer contact centers:

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