

DuPont™ Elvax® 3128-1

Elvax® resins Product Data Sheet

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

Physical	Nominal Values	Test Method(s)
*Density ()	0.93 g/cm ³	ASTM D792 ISO 1183
*Melt Flow Rate (190°C/2.16kg)	2 g/10 min	ASTM D1238 ISO 1133
Thermal	Nominal Values	Test Method(s)
*Melting Point (DSC)	99 °C (210.2 °F)	ASTM D3418 ISO 3146
Freezing Point (DSC)	83 °C (181.4 °F)	ASTM D3418 ISO 3146
Vicat Softening Point ()	77 °C (170.6 °F)	ASTM D1525 ISO 306

Processing Information

*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

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

Nominal Values

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 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.

The information and certifications provided herein are based on data we believe to be reliable, to the best of our knowledge. The information and certifications apply only to the specific material designated herein as sold by DuPont and do not apply to use in any process or in combination with any other material. They are provided at the request of and without charge to our customers. Accordingly, DuPont cannot guarantee or warrant such certifications or information and assumes no liability for their use.

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:

Americas

DuPont Company
Chestnut Run Plaza – Bldg. 730
974 Centre Road
Wilmington, Delaware
19805 U.S.A.

Asia Pacific

DuPont China Holding Co., Ltd.
Shanghai Branch
399 Keyuan Road, Bldg. 11
Zhangjiang Hi-Tech Park
Pudong New District, Shanghai

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

Toll-Free (USA): 1-800-628-6208
Telephone: 1-302-774-1000
Fax: 1-302-355-4013

P.R. China (Postcode: 201203)
Telephone +86 21 3862 2888
Fax +86-21-3862-2889

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://www.dupont.com>

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