

DuPont™ Elvax® 3200-2

Elvax® resins Product Data Sheet

Description

Product Description DuPont™ Elvax® 3200-2 is an extrudable, wax modified, 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 22.5% By Weight Vinyl Acetate comonomer content
Wax
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 extrusion coating equipment over a wide range of line speeds and coating thicknesses. It can also be coextrusion coated with a variety of other polymers. This resin is typically used as a lidding sealant for a variety of formed containers, in replacement of solvent applied heat seal lacquers. It will provide a good seal against HDPE film and sheet, polypropylene film, PVDC, rigid vinyl, rigid and foamed polystyrene, and nitrocellulose coatings.

Elvax®3200-2 will provide a low-temperature heat seal. The actual heat seal initiation temperature, sealing range, and ultimate seal strength will depend on variables such as coating structure, thickness, substrate type, thermal conductivity of structure, type of heat sealing equipment, end-use environment, and many others.

Because a quantitative description of heat seal performance can only be determined for a given application, it is imperative that heat seal properties be evaluated for each specific application. However, for a relative comparison of heat seal initiation temperatures, the Vicat temperature of each Elvax® resin can be considered.

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)	32 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	71 °C (159.8 °F)	ASTM D3418	ISO 3146
Freezing Point (DSC)	55 °C (131 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ()	55 °C (131 °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. Excessively high melt temperatures, above 230°C (446°F), may cause thermal degradation of the resin. Gel formation can indicate the onset of polymer degradation. Chemical priming is usually required to achieve adhesion to transparent or smooth substrates such as glassine and foil. To obtain the best chill roll release characteristics, matte finish chill rolls are recommended. More detailed information on processing and physical properties can be obtained by contacting your DuPont™ Performance Materials representative.

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® 3200-2 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:

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