



Dow Packaging & Specialty Plastics

Product Data Sheet

ELVAX™ 450

Ethylene Vinyl Acetate Copolymer

General Information

Product Description ELVAX™ 450 is an ethylene-vinyl acetate copolymer resin for use in industrial applications.

Status

Material Status Commercial: Active

Typical Characteristics

Composition 18% By Weight Vinyl Acetate comonomer content
Thermal Stabilizer: BHT antioxidant

Applications ELVAX™ resins can be used in a variety of applications involving molding, compounding, extrusion, adhesives, sealants, and wax blends.

Typical Properties

Physical	Nominal Values	Test Method(s)	
*Density ()	0.941 g/cm ³	ASTM D792	ISO 1183
*Melt Flow Index (190°C/2.16kg)	8 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	86 °C (186.8 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ()	61 °C (141.8 °F)	ASTM D1525	ISO 306

Processing Information

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

General Processing Information ELVAX™ resins can be processed by conventional thermoplastic processing techniques, including injection molding, structural foam molding, sheet and shape extrusion, blow molding and wire coating. They can also be processed using conventional rubber processing techniques such as Banbury, two-roll milling and compression molding.

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™ 450 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 Dow 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, Dow 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 Dow representative.

Safety & Handling**THE IMPORTANCE OF PROPER HANDLING & STORAGE:**

Maintaining proper handling and storage conditions for 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 Dow representative.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use. **DOW MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY DOW PRODUCT FOR USE IN MEDICAL APPLICATIONS.**

For further information contact your Dow sales or technical representative to request a Medical Application Review Request Form.

Additional details of Dow's Medical Applications Policy are available at:

<https://www.dow.com/en-us/support/product-safety.html>

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Harmful Applications Policy

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http://www.dow.com/products_services

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P&SP Disclaimer

Additional Information

To contact Dow via Toll-Free or Local Toll phone numbers in specific countries, please see the following webpage:
<https://www.dow.com/en-us/support/contact-representative.html>

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