



Dow Packaging & Specialty Plastics

Product Data Sheet

ELVAX™ 40L-03

Ethylene Vinyl Acetate Copolymer

General Information

Product Description	ELVAX™ 40L-03 is an ethylene-vinyl acetate copolymer resin for use in industrial applications. The melt index is consistent because resin molecular weight distribution is controlled to within a relatively narrow range. The molecular weight is high for this family of copolymers, so finished products will be relatively resistant to mechanical damage and elevated temperatures. Compared with other ethylene/vinyl acetate copolymers, ELVAX™ 40L-03 contains extremely low amounts of gel, or high-molecular-weight polymer, that can cause undesirable characteristics in finished products. Because ELVAX™ 40L-03 is somewhat crystalline, it is free flowing and does not mass during handling.
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Status

Material Status	Commercial: Active
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Typical Characteristics

Uses	Industrial Applications; Wire & Cable Applications; Wire Jacketing
Composition	40% By Weight Vinyl Acetate comonomer content Thermal Stabilizer: BHT antioxidant
Features	High Molecular Weight, High Viscosity
Applications	ELVAX™ resins can be used in a variety of applications involving molding, compounding, extrusion, adhesives, sealants, and wax blends. ELVAX™ 40L-03 is especially well suited for use in jacketing compounds for automotive ignition and low-smoke cables, and as strippable semiconductive shields for power cables. In these applications, the relatively narrow molecular weight distribution and the low gel properties help ensure that compounds will be consistent and finished products will be smooth-surfaced. Smooth, glossy surfaces are desirable because they can imply quality, while uniformity can enhance long-term performance. Power cable semiconductive shields made with ELVAX™ 40L-03 also benefit from the consistency of their compounds and low gel content. Any inconsistency in shields can lead to cable failure.

Typical Properties

Physical	Nominal Values	Test Method(s)	
*Density ()	0.967 g/cm³	ASTM D792	ISO 1183
*Melt Flow Index (190°C/2.16kg)	3 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
*Melting Point(DSC)	58 °C (136.4 °F)	ASTM D3418	ISO 3146
Freezing Point (DSC)	26 °C (78.8 °F)	ASTM D3418	ISO 3146

Processing Information

*Maximum Processing Temperature	235 °C (455 °F)
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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™ 40L-03 resin complies with Food and Drug Administration Regulation 21 CFR 177.1350(d) - - Ethylene-vinyl acetate copolymers, subject to the limitations and requirements therein. This Regulation describes polymers that may be used to make articles (film) for use in contact with food, subject to the finished food-contact film meeting the extractive limitations, as shown in paragraph (e)(2) 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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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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