Technical Information

ELVAX™ 40L-03

Ethylene Vinyl Acetate Copolymer

Description

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.

Restrictions

Material Status: Commercial: Active

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 Rate (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)

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.**
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