

DuPont™ Elvax® 40L-03

Elvax® resins Product Data Sheet

Description

Product Description

DuPont™ 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. For additional information and properties associated with specific applications, please refer to the Grade Selector Guides found on the Elvax® website for industrial applications:

http://www2.dupont.com/Elvax/en_US/tech_info/index.html

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/cm ³	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	<p>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.</p> <p>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.</p>
FDA Status Information	<p>ELVAX® 40L-03 EVA 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.</p> <p>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.</p>
Regulatory Information	For information on regulatory compliance outside of the U.S.A., consult your local DuPont representative.
Safety & Handling	<p>THE IMPORTANCE OF PROPER HANDLING & STORAGE:</p> <p>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.</p> <p>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.</p> <p>Please refer to the Elvax® Handling Guide for additional information.</p> <p>For additional information on appropriate Handling & Storage of this polymeric resin, please refer to the material Safety Data Sheet..</p> <p>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.</p>

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

Asia Pacific

DuPont China Holding Co., Ltd.
Shanghai Branch
399 Keyuan Road, Bldg. 11
Zhangjiang Hi-Tech Park
Pudong New District, Shanghai
P.R. China (Postcode: 201203)
Telephone +86 21 3862 2888
Fax +86-21-3862-2889

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
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>

The data listed here fall within the normal range of properties, but they should not be used to establish specification limits nor used alone as the basis of design. The DuPont Company assumes no obligations or liability for any advice furnished or for any results obtained with respect to this information. All such advice is given and accepted at the buyer's risk. The disclosure of information herein is not a licence to operate under, or a recommendation to infringe, any patent of DuPont or others. Since DuPont cannot anticipate all variations in actual end-use conditions, DuPont makes no warranties and assumes no liability in connection with any use of this information.

CAUTION: Do not use DuPont materials in medical applications involving implantations in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your applications and expressly acknowledges the contemplated use. For our DuPont representative You may also request a copy of DuPont POLICY Regarding Medical Applications H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

Copyright © 2009 DuPont. The DuPont Oval Logo, DuPont™, The miracles of science™, and trademarks designated with "®" are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved

Version: 32.0

Last modified at 10/8/2017 8:38 AM