Dow Packaging & Speciality Plastics
Product Data Sheet

ELVAX™ 3174

Ethylene Vinyl Acetate Copolymer

Description

Product Description	ELVAX™ 3174 is an extrudable 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	18% By Weight Vinyl Acetate comonomer content 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 and cast film equipment over a wide range of line speeds and film thicknesses. Typically, cast film of this grade is adhesive laminated to polyester or other substrates as required by the application.

Typical Properties

Physical	Nominal Values		Test Method(s)	
*Density ( )	0.94 g/cm³	ASTM D792		ISO 1183
*Melt Flow Rate (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
Freezing Point (DSC)	65 °C (149 °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	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. Priming is usually required to achieve the best adhesion to transparent or smooth substrates. To obtain the best chill roll release characteristics, matte finish chill rolls are recommended. However, if a gloss chill roll is required, the release additives will help prevent sticking. 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™ 3174 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.

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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.**

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