

DuPont™ Elvaloy® PTW

Elvaloy® resins Product Data Sheet

Description

Product Description Elvaloy® PTW is an ethylene terpolymer, used as an Impact Modifier for a variety of polymers, and also as a Nucleator for CPET trays.

Restrictions

Material Status • Commercial: Active

Typical Characteristics

Uses • Polymer Modifier

Characteristics / Benefits General purpose toughener for a variety of polymers. Promotes toughening and rapid crystallization of PET.

Applications When used in a CPET tray formulation, it provides both toughening and nucleation in one material.

Typical Properties

Physical	Nominal Values	Test Method (s)	
Density ()	0.94 g/cm ³	ASTM D792	ISO 1183
Melt Flow Rate (190°C/2.16kg)	12 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method (s)	
Melting Point (DSC)	72°C (162°F)	ASTM D3417	ISO 3146

Processing Information

General

Maximum Processing Temperature 310°C (590°F)

General Processing Information Optimizing Use Level:
This material is an ethylene terpolymer that is most effective when it is well dispersed into a polymer. The single screw or twin-screw extrusion equipment used to melt and pump the molten polymer provides the dispersive mixing. Increasing the loading of the concentrate in the polymer makes it more difficult to develop the required degree of dispersion. The best improvement in cold temperature impact resistance may occur at an intermediate loading in the case where the extrusion equipment has limited mixing capabilities. On single screw extruders, increasing the screw speed has been found to improve the quality of the dispersion and observed tray toughness.

Handling/Storage of Concentrate:
Elvaloy® PTW is supplied in polyethylene bag lined boxes or bags. The product does not require drying but the material should be handled in a way that minimizes moisture pick-up. For example reseal bags or box liners when partial bags or boxes are not being used.

Feeding Extruder:
The melting point of the Elvaloy® PTW is 72°C (162°F) so a split feed extruder hopper will be required in cases where the temperature of a hot dried polymer such as PET exceeds the melting point of the concentrate.

Regulatory Information

CPET or other polymers containing minor amounts of Elvaloy® PTW should be tested to confirm they comply with applicable food contact regulations in your region.

Safety & Handling

Elvaloy® resins as supplied by DuPont are not considered hazardous materials. As with any hot material, care should be taken to protect the hands and other exposed parts of the body when handling molten polymer. At recommended processing temperatures, small amounts of fumes may evolve from the resins. When resins are overheated, more extensive decomposition may occur. Adequate ventilation should be provided to remove fumes from the work area. Disposal of scrap presents no special problems and can be by landfill or incineration in a properly operated incinerator. Disposal should comply with local, state, and federal regulations. Resin pellets can be a slipping hazard. Loose pellets should be swept up promptly to prevent falls. For more detailed information on the safe handling and disposal of DuPont resins, a Material Safety Data Sheet can be obtained from the DuPont Packaging and Industrial Polymers website or by contacting your sales representative.

Read and Understand the Material Safety Data Sheet (MSDS) before using this product

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:

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