

DuPont™ Elvaloy® CT2

Elvaloy® resins Product Data Sheet

Description

Product Description Elvaloy® CT2 is an ethylene copolymer blend, used as an Impact Modifier and Nucleator for CPET trays.

Restrictions

Material Status • Commercial: Active

Typical Characteristics

Uses • Polymer Modifier

Features Contains PET Nucleation Promoter and Impact Modifier

Characteristics / Benefits Promotes toughening and rapid crystallization of CPET

Applications Toughener/Nucleator for Polyester used to make CPET trays

Typical Properties

Physical	Nominal Values	Test Method(s)	
Density ()	0.95 g/cm ³	ASTM D792	ISO 1183
Melt Flow Rate (190°C/2.16kg)	2 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
Melting Point (DSC)	90°C (194°F)	ASTM D3417	ISO 3146

Processing Information

General

Maximum Processing Temperature 310°C (590°F)

General Processing Information Introduction:
Elvaloy® CT2 is intended to be a combination crystallization promoter and toughening agent for the manufacture of CPET trays for packaging ready to eat meals. Recommended loading is 5 to 15wt% of Elvaloy™ CT2 into high IV (0.85 to 0.95IV) polyethylene terephthalate (PET) during sheet extrusion.

Optimizing Use Level:
This material is an ethylene copolymer blend that is most effective when it is well dispersed into the PET. 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 PET 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® CT2 is a blend of ethylene copolymers. It 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® CT2 is 90°C (194°F) so a split feed extruder hopper will be required in cases where the temperature of the hot dried PET exceeds the melting point of the concentrate.

Regulatory Information

Articles made with PET or other thermoplastics modified with small amounts of Elvaloy® CT2 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:

Americas

DuPont Company, BMP26-2363
Lancaster Pike & Route 141
Wilmington, DE 19805 U.S.A.
Telephone +1 302-774-1161
Toll-free (USA) 800-628-6208
Fax +1 302-999-4399

DuPont do Brasil, S.A.
Alameda Itapecuru, 506
06454-080 Barueri, SP Brasil
Telephone +55 11 4166 8122
Fax +55 11 4166 8720

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

<http://elvaloy.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

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