

DuPont™ Booster™ LLD-100

Booster™ resins Product Data Sheet

Description

Product Description Booster™ LLD-100 is a modified linear low-density polyethylene polymer intended for use as a melt strength enhancer in extrusion processing of LLDPE and HDPE resins.

Restrictions

Material Status • Commercial: Active

Typical Characteristics

Uses • Plastics Modification

Features Booster™ can significantly increase productivity in the extrusion processing of LLDPE and HDPE resins. Booster™ does not interfere with other additives, and is approved for food contact applications.

Characteristics / Benefits Increases in melt strength achieved by the addition of Booster™ can mean:
 - production rate increases of up to 50%
 - enhanced gauge uniformity, allowing downgauging of up to 20%
 - enhanced capability for producing both very thin and very thick films

Applications * Blown & Cast Film
 * Mono & Multi layer structures
 * Extrusion Coating
 * Blow Molding

Typical Properties

Physical	Nominal Values	Test Method(s)	
Density ()	0.93 g/cm ³	ASTM D792	ISO 1183
Melt Flow Rate (190°C/2.16kg)	75 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
Melting Point (DSC)	123°C (253°F)	ASTM D3417	ISO 3146

Processing Information

General

Maximum Processing Temperature 300°C (572°F)

General Processing Information Booster™ is supplied in pellet form, and is normally added to the base resin at a level of 1 to 3 wt%, dependent upon the desired level of productivity improvement.

In general, when using Booster™, no processing changes are necessary to regular recommended extrusion conditions. Process temperatures must be high enough to produce a melt free from localized temperature fluctuations and shear stresses.

Although lower processing temperatures may give slightly higher melt strength, they can result in poor-quality melt and film with less than optimum physical properties. The addition of Booster™ will more than compensate for any loss of melt strength caused by higher temperatures.

Scrap film containing Booster™ can be reclaimed and reprocessed; gel levels and film physical properties will be comparable to those seen with regular resin reclaim.

Note: Booster™ does not reduce melt fracture, nor does it act as a lubricant to reduce extruder power requirements.

FDA Status Information

USA: --- When used in a food-approved grade of LLDPE at a level of 2%, Booster™ complies with Section 177.1520 of Title 21, Code of Federal Regulations, entitled Olefin Polymer.

Regulatory Information

For information on regulatory compliance outside of the U.S., consult your local DuPont representative.

Safety & Handling

As with any hot material, care should be taken to protect the hands and other exposed parts of the body when working with molten polymer.

At elevated temperatures, these resins can evolve low concentrations of fumes. When resins are overheated, more extensive decomposition may occur. Because fumes produced during exposure to high temperatures may be combustible, exposure of overheated resin to atmospheric oxygen should be avoided if possible. Adequate local ventilation should be provided to remove the fumes from the work area.

Disposal of scrap material presents no special problems, and may be accomplished by landfill or by incineration by 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 these resins, a Product Safety Bulletin and OSHA Material Safety Data Sheets can be obtained from the Regional Office serving you.

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

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