

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 (*** see note below ***)	75 g/10 min	ASTM D1238	ISO 1133

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 *** DO NOT place this resin in a melt flow rate tester (melt indexer). This is a reactive polymer when exposed to heat. The MFR reported is that of the base compound for DuPont quality control purposes only. ***
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Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	123 °C (253.4 °F)	ASTM D3418	ISO 3146

Processing Information

*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.

Note: When processing PE blends with Booster™, do not idle the extruder for an extended period. If the line needs to be stopped, keep the screw moving at a low RPM to keep polymer flowing through the system and out through the die. If a line needs to be idled for an extended period of time, or is being shut down, then purge the line with plain PE resin, to remove all material containing Booster™ from the polymer flow passages from hopper to die exit.

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.

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.

Regulatory Information

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

Safety & Handling

For 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 DuPont Packaging and Industrial Polymers representative.

Regional Centres

DuPont operates in more than 70 countries.

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