Technical Data Sheet

Lupolen 1840D

Low Density Polyethylene

Product Description

Lupolen 1840 D is a non-additivated, low density polyethylene. It is characterized by a high melt strength leading to a good bubble stability during blown film extrusion. It is delivered in pellet form.

This product is not intended for use in medical and pharmaceutical applications.

Application	Agriculture Film; Bags & Pouches; Heavy Duty Packaging; Liner Film; Shrink Film; Stretch Hood
Market	Flexible Packaging
Processing Method	Blown Film
Attribute	General Purpose; Good Processability; Good Tear Strength; Good Toughness

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (190 °C/2.16 kg)	0.25	g/10 min	ISO 1133-1
Density	0.919	g/cm³	ISO 1183-1
Mechanical			
Tensile Modulus	200	MPa	ISO 527-1, -2
Tensile Stress at Yield	9	MPa	ISO 527-1, -2
Film			
Dart Drop Impact Strength, F50	280	g	ASTM D1709
Tensile Strength			
MD	27	MPa	ISO 527-1, -3
TD	25	MPa	ISO 527-1, -3
Tensile Strain at Break			
MD	200	%	ISO 527-1, -3
TD	500	%	ISO 527-1, -3
Coefficient of Friction	>0.8		ISO 8295
Impact			
Failure Energy	6.5	J/mm	DIN 53373
Film thickness: 70 µm			
Thermal			
Vicat Softening Temperature, (A/50)	93	°C	ISO 306
Peak Melting Point	108	°C	ISO 11357-3
Optical			
Haze, (50 µm)	<15	%	ASTM D1003

Gloss		
(20°)	>10	ASTM D2457
(60°)	>50	ASTM D2457

Additional Information

Test Specimen	Film

Film properties tested using 50 µm thickness blown film extruded at a melt temperature of 180°C and a blow-up ratio of 2.5:1.

Processing Parameters

Extrusion Temperature	170-220	°C

Storage:

The resin is packed in 25 kg bags, octabins or bulk containers protecting it from contamination. If it is stored under certain conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavorable storage conditions may also intensify the resin's slight characteristic odor.

Resin should be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. Higher storage temperatures may reduce the storage time.

The information submitted is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. This information does not remove the obligation of the customer to inspect the material on arrival and notify us of any faults immediately. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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