Polyethylene

Borstar® FB1350

Description

Borstar FB1350 is a linear medium density polyethylene grade combining excellent extrusion properties with high film stiffness.

Borstar FB1350 is well suited for mono- and coextrusion of films produced with high neck or low neck extrusion.

Applications

Borstar FB1350 has been developed especially for applications like:

Heavy-duty sack
General packaging
Pouches
Refuse sacks and liners
Geomembranes
Blending

Additives

Borstar FB1350 contains antioxidant.

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	935 kg/m3	ISO 1183
Melt Flow Rate (190 °C/21,6 kg)	15 g/10min	ISO 1133
Melt Flow Rate (190 °C/5,0 kg)	0,6 g/10min	ISO 1133
Melting temperature (DSC)	127 °C	ISO 11357-3

Film Properties

Film properties are measured on 25 µm blown film produced on a 65 mm Alpine extruder with die 160 x 1,5 mm, BUR = 4:1, Neck height = 7DD.

Property			Typical Value Data should not be used for specification work	Test Method
Dart Drop			150 g	ISO 7765-1
Instrumented puncture test	Total Penetration Energy		15 J/mm	ISO 7765-2
Haze			80 %	ASTM D 1003
Gloss at 20 degree (of arc)			5 %	ASTM D 2457
Tensile Strain at Break [1]		MD	400 %	ISO 527-3
Tensile Strain at Break		TD	650 %	ISO 527-3
Tensile Strength		MD	57 MPa	ISO 527-3
Tensile Strength		TD	48 MPa	ISO 527-3
Tensile Modulus		MD	500 MPa	ISO 527-3
Tensile Modulus		TD	650 MPa	ISO 527-3
Tear resistance (Elmendorf)		MD	12 N/mm	ISO 6383/2
		TD	290 N/mm	
Coefficient of friction			0,4	ISO 8295

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[1] MD = machine direction, TD = transverse direction.

Processing Techniques
Borstar FB1350 is easily processed on conventional extruders.

Borstar FB1350 is best processed on conventional LDPE/HDPE or combination extruders. FB1350 is especially developed for high strength, high stiffness Borstar grade. Conventional HDPE/LDPE die gaps 1,2-1,5 mm is recommended and this will give the best balance between extruder melt pressure and physical film properties.

Recommended melt temperature range is from 190°C to 210°C. Due to differences in screw and die head designs, the optimum temperature adjustments are individual and should be sought for each production line.

With suitable equipment **Borstar FB1350** can be drawn down to 15 micron as mono film.

Storage
Borstar FB1350 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

Safety
The product is not classified as dangerous.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Recycling
The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Related Documents
Most Data sheet and safety data sheets are available on Borealis web site www.borealisgroup.com. If the data sheets not could be found on the web, Borealis contact person could supply with information.

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Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of Borealis' products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

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