



Polyethylene

Borstar® FB4370

Polyethylene for Film Extrusion

Description

Borstar FB4370 is a linear medium density polyethylene grade combining excellent extrusion properties with high film stiffness.

Applications

Borstar FB4370 has been developed especially for applications like:

Lamination films
Shrink film

Automated packaging
Blending

Additives

Borstar FB4370 contains antioxidant.

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	937 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	0,4 g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	2,1 g/10min	ISO 1133
Melt Flow Rate (190 °C/21,6 kg)	42 g/10min	ISO 1133
Melting temperature (DSC)	128 °C	ISO 11357-3

Film Properties

Film properties are measured on 40 µm blown film produced on a 60 mm W&H extruder with L/D 30 and die 200 x 1,2 mm, BUR = 3:1, FLH = 2DD.

Property	Typical Value	Test Method
Data should not be used for specification work		
Dart Drop	100 g	ISO 7765-1
Instrumented puncture test	Total Penetration Energy	10 J/mm
Haze	70 %	ISO 7765-2
Gloss at 20 degree (of arc)	10	ASTM D 1003
Tensile Strain at Break ¹	MD 530 %	ASTM D 2457
Tensile Strain at Break	TD 830 %	ISO 527-3
Tensile Strength	MD 55 MPa	ISO 527-3
Tensile Strength	TD 40 MPa	ISO 527-3
Tensile Modulus	MD 450 MPa	ISO 527-3
Tensile Modulus	TD 540 MPa	ISO 527-3
Tear resistance (Elmendorf)	MD 35 N/mm	ISO 6383/2
	TD 200 N/mm	
Coefficient of friction	0,4	ISO 8295

¹ MD = machine direction, TD = transverse direction.

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168



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Processing Techniques

Borstar FB4370 is easily processed on conventional extruders.

Borstar FB4370 is easily processed on conventional extruders. FB4370 is especially developed as an easy processing Borstar which gives low melt pressure also in blown coex film lines. Conventional 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 FB4370** can be drawn down to 20 micron as mono film.

Storage

Borstar FB4370 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.

More information on storage is found in our "Safety data sheet" / "Product safety information sheet".

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

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"

Statement on chemicals, regulations and standards

Statement on compliance to food contact regulations

Statement on polymer additives and BSE

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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.

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