Polyethylene
Borstar® FB1460

High density Polyethylene for Film Extrusion

Description

Borstar FB1460 is a high density polyethylene film grade which combine excellent extrusion behaviour with superior mechanical properties.

Films made of Borstar FB1460 have high strength and stiffness, and excellent consistency.

Applications

Borstar FB1460 has been developed especially for applications like:

Geomembranes
Blending

Additives

Borstar FB1460 contains antioxidant.

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	946 kg/m3	ISO 1183
Melt Flow Rate (190 °C/5 kg)	0,2 g/10min	ISO 1133
Melt Flow Rate (190 °C/21,6 kg)	6 g/10min	ISO 1133
Melting temperature	131 °C	ISO 11357-3
Vicat softening temperature (10 N)	125 °C	ISO 306

Film Properties

Film properties are strongly dependent of extrusion conditions.

Property			Typical Value Data should not be used for specification work	Test Method
Dart Drop			450 g	ISO 7765-1
Puncture resistance	Energy to break		1,5 J	ASTM D 5748
	Force		38 N	
Tensile Strain at Break [1]		MD	300 %	ISO 527-3
Tensile Strain at Break		TD	450 %	ISO 527-3
Tensile Strength		MD	75 MPa	ISO 527-3
Tensile Strength		TD	60 MPa	ISO 527-3
Tensile Modulus		MD	600 MPa	ASTM D 882-A
Tensile Modulus		TD	700 MPa	ASTM D 882-A
Tear resistance (Elmendorf)		MD	0,2 N	ISO 6383/2
		TD	1,0 N	

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

Borstar is a registered trademark of Borealis A/S, Denmark.

BOREALIS

Polyethylene
Borstar FB1460

Processing Techniques

Borstar FB1460 is easily processed on conventional extruders.

Borstar FB1460 should be processed in HDPE film extruders in order to obtain optimal performance in extrusion and in mechanical properties.

Recommended extrusion conditions are:

Flat temperature profile with a melt temperature between 210°C and 230°C.

Neck height	5 - 8 x die diameter
Blow up ration	3:1 - 5:1

Storage

Borstar FB1460 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 a dangerous preparation.

Please see our Safety Data 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.

BOREALIS

Polyethylene
Borstar FB1460

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.

BOREALIS