

Product Data Sheet

Polyethylene

Borstar® FB1460

HIGH DENSITY POLYETHYLENE FOR HIGH PERFORMANCE FLEXIBLE PACKAGING

DESCRIPTION

Borstar®FB1460 is high density film grade produced using the proprietary **Borstar** bimodal technology combining superior physical properties with excellent process ability. The product gives a strong and stiff film with high consistency. Material properties are best realized by processing at HDPE conditions.

Borstar®FB1460 contains antioxidant.

APPLICATIONS

Mono layer & co-extrusion films	Exclusive Carrier/Boutique bags
Thin protection film	Thin bags
Heavy duty bags	Industrial Liners
Food packaging	

SPECIAL FEATURES

Easy processability	Excellent draw down
Excellent impact strength – stiffness balance	Bubble stability

PHYSICAL PROPERTIES

Property	Typical Value	Unit	Test Method
Density	946	Kg/m ³	ASTM D792
Melt Flow Rate MFR (190 °C/2.16 kg)	<0.1	g/10min	ASTM D1238
Melt Flow Rate MFR (190 °C/5.0 kg)	0.2	g/10min	ASTM D1238
Melt Flow Rate MFR (190 °C/21 kg)	6	g/10min	ASTM D1238
Melting Temp.	131	°C	ISO 11357/03
Vicat Softening Temperature A50 (10 N)	125	°C	ISO 306
ESCR – 10% Igepal / F50	>1000	Hours	ASTM D 1693

*Data should not be used for specification work

Borstar is a registered trademark of the Borealis group

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FILM PROPERTIES

Property		Typical Value	Unit	Test Method
Tensile Strength at Break	MD/TD	75/55	MPa	ISO 527-3
Elongation at Break	MD/TD	350/500	%	ISO 527-3
Tensile Strength at Yield	TD	25	MPa	ISO 527-3
Tensile Modulus	MD/TD	700/800	MPa	ASTM D 882
Dart Drop		350	g	ASTM D 1709/A
Elmendorf Tear Strength	MD/TD	20/40	g	ASTM D 1922
Puncture Resistance, force		30	N	ASTM D 5748
Puncture Resistance, energy		1	J	ASTM D 5748

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**The film properties are dependent on extrusion conditions.

Film properties: 15µm, BUR = 4:1, Neck Height = 8DD, Die gap 1.2mm

PROCESSING GUIDELINES

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

Recommended processing conditions:

Melt temperature: 210 - 230°C

Neck height: >5 x die diameter

Blow up ratio >3:1

FOOD CONTACT REGULATIONS

Borstar®FB1460 fulfils the food contact regulations in most countries. If required, contact your Borouge representative for a certificate.

STORAGE

The product 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 can be found in Safety Information Sheet for this product.

SAFETY

The product is not classified as a hazardous mixture.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

A Safety Information Sheet is available on request. Please contact your Borouge representative for more details on various aspects of safety, recovery and disposal of the product.

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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 datasheets and statements are available on Borouge website www.borouge.com.
If more information is required, please contact a Borouge representative for information.

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.

Borouge 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 Borouge 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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