

July 2008

Borstar[®] FB1460

HIGH DENSITY POLYETHYLENE FOR HIGH PERFORMANCE FLEXIBLE PACKAGING

DESCRIPTION

Borstar FB1460 is a bimodal polyethylene for high density film. Combining superior physical properties with excellent processability, **Borstar FB1460** gives a strong and stiff film with high consistency. Material properties are best realised by processing at HDPE conditions.

Borstar FB1460 contains antioxidant.

APPLICATIONS

Borstar FB1460 is well suited for mono and coextrusion in a wide range of applications due to its unique balance of properties. Typical applications: Exclusive Carrier/Boutique bags, Thin protection Film, Thin Carrier Bags, Industrial Liners and Heavy Duty Bags.

FOOD CONTACT REGULATIONS

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

STORAGE AND HANDLING

The product should be stored in dry conditions at temperatures below 60°C and protected from UV-light. Improper storage can initiate degradation with resulting odour generation and colour changes.

PHYSICAL PROPERTIES

	Typical Value*	Unit	Test Method
Density	946	kg/m ³	ASTM D 1505
Melt Flow Rate MFR (190°C/2.16 kg)	< 0.1	g/10 min	ASTM D 1238
Melt Flow Rate MFR (190°C/5.0 kg)	0.2	g/10 min	ASTM D 1238
Melt Flow Rate MFR (190°C/21.6 kg)	6	g/10 min	ASTM D 1238
Melting temperature	131	°C	ISO 11357/03
Vicat Softening Temperature A (10N)	125	°C	ISO 306
ESCR – 10% Igepal / F50	>5000	Hours	ASTM D 1693

* Data should not be used for specification work

PROCESSING GUIDELINES

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

Recommended processing conditions:

Melt temperature 190 - 230°C.
Neck height >5 x die diameter
Blow up ratio >3:1

FILM PROPERTIES**		Typical Value*	Unit	Test Method
Tensile strength at break	MD/TD	75 / 55	MPa	ASTM D 882
Tensile Strength at yield	TD	25	MPa	ASTM D 882
Elongation at break	MD/TD	350 / 500	%	ASTM D 882
Secant modulus	MD/TD	700 / 800	MPa	ASTM D 882
Elmendorf Tear strength	MD/TD	20 / 100	g	ASTM D 1922
Dart Drop		400	g	ASTM D 1709
Puncture resistance, force		30	N	ASTM D 5748
Puncture resistance, energy		1.0	J	ASTM D 5748

* The data should not be used for specification work.

** The film properties are dependent on extrusion conditions.

Film properties: 15µm, BUR 4:1, Neck height 8xDD

SAFETY

FB1460 is not classified as a dangerous product.

Dust and fines from the product may give a risk for dust explosion. All equipment should be properly grounded. Inhalation of dust may irritate the respiratory system and should be avoided.

During processing of the product small amounts of fumes are generated, which require proper ventilation.

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

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning but for pipe applications only if approved in the relevant standard or specification. 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 the datasheets or statements cannot be found on the web, please contact a Borouge representative for information.

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

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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