July 2014

Product Data Sheet

Polyethylene

Borstar® FB1370

ENHANCED POLYETHYLENE

DESCRIPTION

Borstar®FB1370 is produced using the proprietary **Borstar** Bimodal Technology resulting in easy extrusion with superior mechanical properties. Film/Sheet made from the product exhibits excellent impact strength and stiffness balance combined with excellent yield, Tensile strength and bubble stability resulting excellent processability on Blown/Cast extrusion machines. Toughness is retained at low temperature. The film has good seal strength and superior ESCR properties.

Borstar®FB1370 contains antioxidant.

APPLICATIONS

Geomembrane	Wide width films
Mono layer & co-extrusion films	Pond Liners

SPECIAL FEATURES

Easy processability	Excellent bubble stability
Excellent mechanical properties balance	Superior ESCR
Good seal properties	

PHYSICAL PROPERTIES

Property	Typical Value	Unit	Test Method
Density	938	Kg/m³	ASTM D792
Melt Flow Rate MFR (190 °C/2.16 kg)	0.12	g/10min	ASTM D1238
Melt Flow Rate MFR (190 °C/5.0 kg)	0.50	g/10min	ASTM D1238
Melt Flow Rate MFR (190 °C/21 kg)	13	g/10min	ASTM D1238
ESCR – 10% Igepal / F50	>5000	Hours	ASTM D 1693
Melting Temp.	129	°C	ISO 11357/03
Vicat Softening Temperature A50 (10 N)	113	°C	ISO 306

*Data should not be used for specification work

Borstar is a registered trademark of the Borealis group

Borouge Pte Ltd 1 George Street I #18-01 I Singapore 049145
Tel +65 6275 4100 I Fax +65 6377 1233 I
www.borouge.com

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FILM PROPERTIES

Property		Typical Value	Unit	Test Method
Tensile Strength at Break	MD/TD	65/50	MPa	ISO 527-3
Elongation at Break	MD/TD	400/650	%	ISO 527-3
Tensile Strength at Yield	TD	20	MPa	ISO 527-3
Tensile Modulus	MD/TD	550/650	MPa	ASTM D 882
Coefficient of Friction		0.35	-	ISO 8295
Dart Drop		350	g	ISO 7765-1
Tear resistance	MD/TD	1/7	N	ISO 6383/2

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**The film properties are dependent on extrusion conditions.
Blown Film properties: 40µm, BUR=3:1, FLH=4DD, Die gap 1.2mm

PROCESSING GUIDELINES

Borstar®FB1370 can be processed easily on Blown / Cast sheet equipment designed for polyethylene extrusion. The balance of draw down properties and bubble stability is superior to conventional LLDPE. Thickness of 15µm to >2500µm can be processed with good bubble stability. The product is well suited for co-extrusion.

Recommended melt temperature is 190 - 210°C.

FOOD CONTACT REGULATIONS

Borstar®FB1370 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.

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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.

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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