

## 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/m <sup>3</sup>	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

## 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	-	ASTM D 1894
Dart Drop		300	g	ASTM D 1709/A
Tear resistance	MD/TD	1/7	N	ASTM D 1922

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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.

## 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](http://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.

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