

# Borstar<sup>®</sup> FB1520

## HIGH DENSITY POLYETHYLENE FOR HIGH PERFORMANCE FLEXIBLE PACKAGING.

### DESCRIPTION

**Borstar FB1520** is a bimodal polyethylene for high density film. Combining superior physical properties with excellent processability. **Borstar FB1520** gives a strong and stiff film with high consistency. Material properties are best realised by processing at HDPE conditions.

**Borstar FB1520** contains antioxidant.

### APPLICATIONS

**Borstar FB1520** 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, Lamination, Thin protection Film, Thin Bags, Industrial Liners and Heavy Duty Bags.

### FOOD CONTACT REGULATIONS

**Borstar FB1520** fulfils the food contact regulations in most countries. If required, contact your Borouge representative for a certificate.

### PHYSICAL PROPERTIES

	Typical Value*	Unit	Test Method
Density	952	kg/m <sup>3</sup>	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)	0.25	g/10 min	ASTM D 1238
Melt Flow Rate MFR (190°C/21.6 kg)	7	g/10 min	ASTM D 1238
Melting temperature	133	°C	ISO 11357/03
Vicat softening Temperature A (10N)	129	°C	ISO 306
ESCR – 10% Igepal / F50	>1000	Hours	ASTM 1693

\* Data should not be used for specification work

### PROCESSING GUIDELINES

**Borstar FB1520** should be processed in HDPE film extruders in order to obtain optimal performance in extrusion and in mechanical properties.

Recommended processing conditions:

Melt temperature: 210 - 230°C  
Neck height: >5 x die diameter  
Blow up ratio >3:1

<b>FILM PROPERTIES**</b>		<b>Typical Value*</b>	<b>Unit</b>	<b>Test Method</b>
Tensile strength	MD/TD	100/95	Mpa	ASTM D 882-B
Tensile Strength at yield	TD	35	Mpa	ASTM D 882-B
Elongation at break	MD/TD	350/450	%	ASTM D 882-B
Secant modulus	MD/TD	750/900	Mpa	ASTM D 882-A
Elmendorf Tear strength	MD/TD	20/40	g	ASTM D 1922
Dart Drop		400	g	ASTM D 1709/D
Puncture resistance, force		30	N	ASTM D 4649
Puncture resistance, energy		0.7	J	ASTM D 4649

\* 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

## **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.

## **SAFETY**

FB1520 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**

The following related documents are available on request, and represents various aspects on the usability, safety, recovery and disposal of the product:

Safety Data Sheet, SDS

Liability statements

- Compliance to Food Contact Regulations
- Heavy Metals

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