



## TECHNICAL DATA SHEET

## FB1520 –( HIGH DENSITY POLYETHYLENE )

**Product Description**

Borstar®FB1520 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®FB1520 contains antioxidant.

**Application:**

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

**Key Features:**

• Easy process ability • Excellent impact strength – stiffness balance • Excellent draw down • Bubble stability

**Origin:** Singapore

- Borouge Pte Ltd

<b>Nominal Resin Properties</b> <sup>(1,2)</sup>	<b>Typical Values</b>	<b>Units</b>	<b>Test Methods</b>
Density	952	kg/m <sup>3</sup>	ASTM D792
Melt Flow Rate (190°C/2.16kg)	<0.1	g/10 min	ASTM D1238
Melt Flow Rate (190°C/5.0kg)	0.25	g/10 min	ASTM D1238
Melt Flow Rate (190°C/21.6kg)	7	g/10 min	ASTM D1238
Melting Temperature	133	°C	ISO 11357/03
Vicat Softening Point A50 (10 N)	129	°C	ISO 306
ESCR – 10% Igepal – F 50%	>1000	Hours	ASTM D1693
<b>Film Properties</b> <sup>1</sup>			
Tensile Strength @ Break (MD/TD)	90/80	MPa	ISO 527-3
Elongation @ Break (MD/TD )	350/450	%	ISO 527-3
Tensile Strength @ Yield (TD)	35	MPa	ISO 527-3
Tensile Modulus (1% Secant) (MD/TD)	800/900	MPa	ASTM D 882
Dart Drop	350	g	ASTM D 1709/A
Tear Strength (MD/TD)	20/40	N	ASTM D 1922
Puncture Resistance, force	30	N	ASTM D 5748
Puncture Resistance, energy	0.7	J	ASTM D 5748

<sup>1</sup> Film properties: 15µm, BUR=4:1, FLH=8DD, Die gap 1.2mm

\* Typical properties and data should not be used for specification work

\*\* The film properties are dependent on extrusion conditions.



### **Processing Conditions**

FB1520 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

### **Storage And Handling:**

This product should be stored in dry conditions at temperature 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 physical properties of this 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.