PRODUCT DATA SHEET

13.06.2024 Ed.3

Polyethylene

BB2581

High Density Polyethylene for Blow Moulding

Description

BB2581 is a multimodal High Density Polyethylene intended for blow moulding applications. BB2581 exhibits excellent process ability allowing potential for energy savings during goods production. BB2581 is characterised by an excellent environmental stress cracking resistance together with good mechanical properties combined with high stiffness allowing therefore further container downweighing and waste reduction. BB2581 is ideal mechanical booster for post consumer recyclate maximisation content.

BB2581 is also suitable for foamed blow moulded applications.

BB2581 can be used as a stiffener in non gel sensitive film applications.

Typical characteristics

BB2581 can be described with following typical characteristics:

Easy process ability	Food contact approved
Excellent environmental stress cracking resistance	100% recyclable
High stiffness	Post Consumer Recyclate mechanical booster

Applications

BB2581 is intended for following applications:

Bottles and containers up to 10 litres	Blow moulding
Household and chemical containers such as detergents, cleaners, motor oils	Compounds

Co-extrusion film application (non gel sensitive)

Physical properties

Property	Typical value *	Unit	Test method
Density	958	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg)	0.3	g/10min	ISO 1133-1
Melt flow rate (190 °C/5 kg)	1.3	g/10min	ISO 1133-1
Flexural modulus (1mm/min) [1]	1050	MPa	ISO 178
Melt flow rate (190 °C/21.6 kg)	28	g/10min	ISO 1133-1
Tensile modulus (1 mm/min) [1]	1030	MPa	ISO 527-2
Tensile strain at yield (50 mm/min) [1]	8	%	ISO 527-2
Tensile stress at yield (50 mm/min) [1]	29	MPa	ISO 527-2
Heat deflection temperature B (0.45 MPa)	60	°C	ISO 75-2
Environmental stress crack resistance (Antarox 10 %, F50, Bell test)	100	h	ASTM D 1693-A
Environmental stress crack resistance (Igepal 10%, F50)	1000	h	ASTM D 1693-B
Hardness, Shore D	62	-	ISO 868

* Data should not be used for specification work

[1] *Measured on injection moulded specimen*

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Processing techniques

BB2581 is easy to extrude and can be used in all conventional blow-moulding machines. Following parameters should be used as guidelines:

Processing setting	Typical value/range
Barrel temperature	170 - 190 °C
Die temperature	175 - 190 °C
Melt temperature	170 - 200 °C

Packaging and storage

BB2581 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which can result in odour generation and colour changes and can have negative effects on the physical properties of this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency. Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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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.
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