

## 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 recycle 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/m <sup>3</sup> | 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) <sup>1</sup>                              | 1050            | MPa               | ISO 178       |
| Melt flow rate (190 °C/21.6 kg)                                      | 28              | g/10min           | ISO 1133-1    |
| Tensile modulus (1 mm/min) <sup>1</sup>                              | 1030            | MPa               | ISO 527-2     |
| Tensile strain at yield (50 mm/min) <sup>1</sup>                     | 8               | %                 | ISO 527-2     |
| Tensile stress at yield (50 mm/min) <sup>1</sup>                     | 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

<sup>1</sup> 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](http://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](http://www.borealisgroup.com) and [www.borealiseverminds.com](http://www.borealiseverminds.com).

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