PRODUCT DATA SHEET

POLYETHYLENE
BorPure™ MB6561

HIGH DENSITY POLYETHYLENE FOR INJECTION AND COMPRESSION MOULDING

DESCRIPTION

BorPure™ MB6561 is a multimodal, high-density polyethylene intended for both injection and compression moulding. This grade exhibits excellent organoleptic properties and very good flow properties with good impact strength.
The broad molecular weight distribution guarantees superior environmental stress crack resistance.

CAS-No. 25087-34-7

APPLICATIONS

Caps and closures for taste-sensitive beverages like water.
Consumer and industrial articles with high ESCR demands.

KEY FEATURES

Excellent organoleptic properties.
Superior Environmental stress crack resistance
Easy and versatile processability.
Good impact strength.

PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density	955 kg/m³	ISO 1183
Melt Flow Rate (190°C/2.16kg)	1.5 g/10min	ISO 1133
Tensile Modulus (1mm/min)	920 MPa	ISO 527-2
Tensile Stress at Yield (50mm/min)	24.0 MPa	ISO 527-2
Tensile Strain at Yield (50mm/min)	9.5 %	ISO 527-2
Tensile Stress at Break (50mm/min)	14 MPa	ISO 527-2
Tensile Strain at Break (50mm/min)	400 %	ISO 527-2
Flexural modulus (2mm/min)	980 MPa	ISO 178
Charpy Notched Strength (23°C, 1eA, Edgewise)	14.0 kJ/m²	ISO 179-1
Shore Hardness (Shore D, 15 sec.)	60.0	ISO 868
Shore Hardness (Shore D, 1 sec.)	63.5	ASTM D2240
VICAT Softening Temperature (A50)	125°C	ISO306
VICAT Softening Temperature (B50)	70°C	ISO306
Temperature of deflection under load (DTUL)	64°C	ISO 75-2
ESCR (10% Igepal – F_{50})	400 Hours	ASTM D1693-B
FNCT (2% Arkopal, 6.0Mpa, 50°C)	40 Hours	ISO 16770

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

Borouge Pte Ltd
1 George Street, #18-01
Singapore 049145
T +65 6275 4100 F +65 6377 1233

PROCESSING CONDITIONS

This product is easy to process with standard injection moulding machines, as well as on compression moulding equipment

Injection Moulding

Following injection moulding parameters should be used as guidelines:

Melt temperature:	190 - 250 °C
Mould temperature:	10 - 40 °C
Injection speed:	As high as possible.

Shrinkage 1 - 2 %, depending on wall thickness and moulding parameters

Compression Moulding

Following compression moulding parameters should be used as guidelines:

Extruder temperature profile	160 - 195 °C
Melt temperature:	180 - 200 °C
Mould temperature:	10 - 40 °C

Shrinkage 1 - 2 %, depending on wall thickness and moulding parameters

Please contact your local Borouge representative for specific recommendations for processing conditions

FOOD CONTACT REGULATIONS

BorPure™MB6561 fulfils the food contact regulations in most countries. If required, contact your Borouge / Borealis representative for a certificate.

STORAGE

BorPure™MB6561 should be stored in dry conditions at temperature bellow 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.
More information on storage can be found in Safety Information Sheet (SIS) 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.

Please see our Safety Information Sheet (SIS) for details on various aspects of safety, recovery and disposal of the product, for more information contact your Borouge representative.

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

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

Safety Information Sheet
Statement on chemicals, regulations and standards
Statement on compliance to regulations for drinking water pipes

STANDARDS

Borouge is certified to various ISO standards, please refer to Borouge.com for more information.

June 2019

Borouge Pte Ltd
1 George Street, #18-01
Singapore 049145
T +65 6275 4100 F +65 6377 1233