

## PRODUCT DATA SHEET

# POLYETHYLENE

## BorPure™ MB5568

HIGH DENSITY POLYETHYLENE FOR INJECTION AND COMPRESSION MOULDING

### DESCRIPTION

**BorPure™ MB5568** is a multimodal, high-density polyethylene intended for both injection and compression moulding with strong focus on organoleptic performance in combination superior environmental stress cracking resistance (ESCR) suitable for use in light-weight closures. This grade also exhibits good flow properties equivalent to that of standard monomodal MFR2 HDPE resin.

CAS-No. 25087-34-7

### APPLICATIONS

Caps and closures for taste-sensitive beverages like water.  
Closures for carbonated soft drinks, tea, juices and sparkling beverages.  
Consumer and industrial articles with high ESCR demands.

### KEY FEATURES

Excellent organoleptic properties  
Superior Environmental stress crack resistance  
Equivalent flowability to a monomodal MFR2 HDPE

### PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density	956 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190°C/2.16kg)	0.8 g/10min	ISO 1133
Tensile Modulus (1mm/min)	1000 MPa	ISO 527-2
Tensile Stress at Yield (50mm/min)	26.0 MPa	ISO 527-2
Tensile Strain at Yield (50mm/min)	9.0 %	ISO 527-2
Charpy Notched Impact (23°C)	28 KJ/m <sup>2</sup>	ISO 179
ESCR – 10% Igepal – F 50%	750 Hours	ASTM D1693-B
FNCT- 6.0Mpa, 50°C, 2% Arkopal)	65 Hours	ISO 16770

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

### 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™MB5568** fulfils the food contact regulations in most countries. If required, contact your Borouge / Borealis representative for a certificate.

### STORAGE

**BorPure™MB5568** 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](http://Borouge.com) for more information.

---

### DISCLAIMER

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however, we do not assume any liability whatsoever for the accuracy and completeness of such information.

**Borouge makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.**

**It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.**

No liability can be accepted in respect of the use of Borouge's products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

Borstar® is a trademark of the Borealis group.

Feb. 2018