

Product News

www.borealisgroup.com | www.borouge.com



Bormed™ LE6609-PH – for high quality and reliable medical bottle applications

Tried and tested solution

Borealis has relaunched Bormed LE6609-PH low density polyethylene (LDPE) for bottles and ampoules produced by Blow, Fill and Seal technology.

Due to the sale of its dedicated production centre, Borealis was absent from the market for some months. The market demand for this medical industry approved and proven polyolefin grade has resulted in the reassignment of production resources to again make it available to customers. In addition to fulfilling current demand, the reintroduction of Bormed LE6609-PH completes the Bormed range and confirms Borealis as a full solution provider to the healthcare products value chain.

Guaranteeing sterility

Patient safety is paramount and in addition to aseptic filling for products such as injectable and intravenous solutions, most health authorities also require post steam sterilisation. Steam sterilisation is the most commonly used sterilisation method for these types of products and there is a trend to use higher sterilisation temperatures

in order to assure a higher guarantee of sterility.

Bormed LE6609-PH was designed specifically to satisfy this elevated performance demand. Offering the highest possible density and therefore melting point for an LDPE, this Bormed grade allows steam sterilisation at temperatures above 110°C.

**Save more than
77 €/ton of LDPE***

Giving additional value to the value chain

- Steam sterilisable up to 110°C – use of autoclave
- Higher density leads to weight reduction of up to 5-7%*
- Sterilisation temperature above 110°C achieves a reduction of sterilisation time of 0.5-1.5 hours.

*Based on an industrial case study



 **BOREALIS**


Borouge

SHAPING *the* FUTURE with PLASTICS



Supporting advantages

- In addition to steam, it can be sterilised using ethylene oxide (EtO) or radiation
- Easy to convert on BFS as well as standard blow moulding machines
- Offers good transparency
- Optimised molecular weight distribution results in material with low swell to give
 - Easy wall thickness and weight reduction
 - Low energy requirement for extrusion

Product assurance

- Produced on a dedicated line
- Free from latex, Bisphenol A, phthalates and ingredients of animal origin
- Complies with EP 3.2.2, EP 3.1.3 and EP 3.1.4
- Passed the test according USP 661, USP 88 and USP 89
- Drug Master File registered – DMF No 17927

Value chain contribution

As the polyolefin provider for the healthcare industry, Borealis offers a comprehensive range of Bormed LDPE, HDPE and PP for pharmaceutical bottles and ampoules. In respect of Bormed LE6609-PH, the benefits for the healthcare value chain include:

For converters: the highest possible sterilisation temperature giving the possibility to reduce autoclave residence time and give greater efficiency in its utilisation;

For brand owners: higher density of Bormed LE6609-PH offers the potential for material and weight reduction while maintaining the same bottle topload;

For end-users: Bormed LE6609-PH provides higher security for sterilised products as well as increased confidence that comes with a grade which is compliant with European Pharmacopeia, US Pharmacopeia and is Drug Master File registered.

Properties	Nominal Values Unit	Test Method
MFR, 190°C/2.16 kg	0.30 g/10 min	ISO 1133
Density	0.930 g/cm ³	ISO 1183
Tensile Modulus	350 MPa	ISO 527-2
Tensile Stress	14.0 MPa	ISO 527-2
Shore Hardness (Shore D)	53	ISO 868
Heat Deflection Temperature		
0.45 MPa Unannealed	54.0°C	ISO 75-2/B

Borealis and Borouge are leading providers of innovative, value creating plastics solutions. With more than 40 years of experience in polyolefins and using our unique Borstar® technology, we focus on the infrastructure, automotive and advanced packaging markets across Europe, the Middle East and Asia. Our production facilities, innovation

centres and service centres work with customers in more than 170 countries to provide materials that make an essential contribution to society and sustainable development. We are committed to the principles of Responsible Care® and to leading the way in 'Shaping the Future with Plastics'™.

Disclaimer The information contained herein is to our knowledge accurate and reliable as of the date of publication. Borealis and Borouge extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the consequences of its use or for any printing errors. It is the customer's responsibility to inspect and test our products in order to satisfy himself as to the suitability of the products for the customer's particular purpose. The customer is also responsible for the appropriate, safe and legal use, processing and handling of our products. Nothing herein shall constitute any warranty (express or implied, of merchantability, fitness for a particular purpose, compliance with

performance indicators, conformity to samples or models, non-infringement or otherwise), nor is protection from any law or patent to be inferred. Insofar as products supplied by Borealis and Borouge are used in conjunction with third-party materials, it is the responsibility of the customer to obtain all necessary information relating to the third-party materials and ensure that Borealis and Borouge products, when used together with these materials, are suitable for the customer's particular purpose. No liability can be accepted in respect of the use of Borealis and Borouge 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 registered trademark of Borealis A/S.
Bormed and Shaping the Future with Plastics are trademarks of Borealis A/S.

For more information contact:

Bormed@borealisgroup.com | info@borouge.com
www.borealisgroup.com | www.borouge.com
+43 1 22 400 000 | +65 6275 4100