

Product News

Introducing Bormed™ BJ868MO

A medical grade plastic for the production of medical devices,
drug delivery systems and diagnostic consumables and labware.

Developers and manufacturers of medical and diagnostic devices must adapt to a number of important societal and technological trends. On the one hand, longer life expectancies and ageing populations have increased the importance of early diagnostics for disease prevention. On the other, technological innovation is driving development of novel devices that are portable, smaller, and in some cases self-operated by patients.

Marketing authorisation holders (MAH) must also comply with increasingly stringent regulations governing medical and diagnostic devices, especially in Europe. Two important EU regulations went into force in May 2017. The first, EU Regulation 2017/746 on in vitro diagnostic medical devices, is more commonly known as IVDR and applies as of 26 May 2022. The second, Regulation (EU) 2017/745, or MDR, pertains to medical devices and applies as of 26 May 2021. Both aim to improve patient safety by introducing stricter procedures for conformity assessment of medical and diagnostic devices.

Borealis Bormed™ BJ868MO is a welcome addition to our range of Bormed polyethylene (PE) and polypropylene (PP) grades for rigid and flexible products in the healthcare industry. A high flow, heterophasic polypropylene copolymer, it is a medical grade that was developed to support our healthcare customers in achieving full compliance with safety regulations like IVDR and MDR. This copolymer is intended for use in the production of medical devices and diagnostic consumables and labware such as pipette tips.

Thanks to this portfolio enlargement, Borealis and Borouge have now one of the largest product offerings for the healthcare market. Bormed BJ868MO is globally available and included in our **Bormed Concept** service package encompassing Service, Commitment, and Conformance.

Keep Discovering

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New material solution offers clear benefits



The validation of the newly developed **Bormed™ BJ868MO** is the result of close cooperation among Premix Oy, a leading manufacturer of electrically conductive and high frequency plastics, and a leading medical diagnostics company.

Bormed BJ868MO functions as a base for a new electrically conductive compound used in the production of high precision pipette tips. In addition to being covered by the Bormed Concept, this new material solution offers important advantages to manufacturers and end users.

- **High impact resistance** minimises risk of breakage for the end user.
- **High impact resistance** also ensures good drop performance of final device in varying conditions (at refrigerator, deep freezer and sub-zero temperatures).
- **Superior high flow** enables fast and easy mould filling; flow length-wall thickness ratios of up to 300 provide very good dimensional stability.
- **Lower holding pressures, lower processing temperatures and faster cycle times** enhance sustainability thanks to reduced energy consumption and CO₂ emissions.

Bormed™ BJ868MO Table of physical properties

Property	Typical value
Melt Flow Rate (203 °C/2,16 kg)	70 g/10 min
Density	905 kg/m ³
Tensile Stress at Yield (50 mm/min)	25 MPa
Tensile modulus (1 mm/min)	1500 MPa
Charpy Impact Strength, notched (23 °C)	5.5 kJ/m ²
Melting temperature (DSC)	165 °C

Collaboration success story: Borealis and Premix Oy

Bormed™ BJ868MO is the result of intensive collaboration among Borealis, Premix Oy and a leading provider of in-vitro diagnostics. Based in Finland, Premix Oy is a European market leader and global pioneer in the area of electrically conductive and high frequency plastics used in the healthcare and other industries. Since the early 1990s, their proprietary PRE-ELEC® Premix compounds have been used in automated liquid handling applications. Because these electrically conductive plastic compounds enable extremely accurate liquid level detection, they are now widely used in in vitro diagnostics to ensure precise measurement. Premix compounds have set new material quality standards in the industry.



“Thanks to this collaboration, we have been able to establish a new benchmark for quality standards in in-vitro diagnostics materials.”

Eira Kärjä, Business Director, Diagnostics

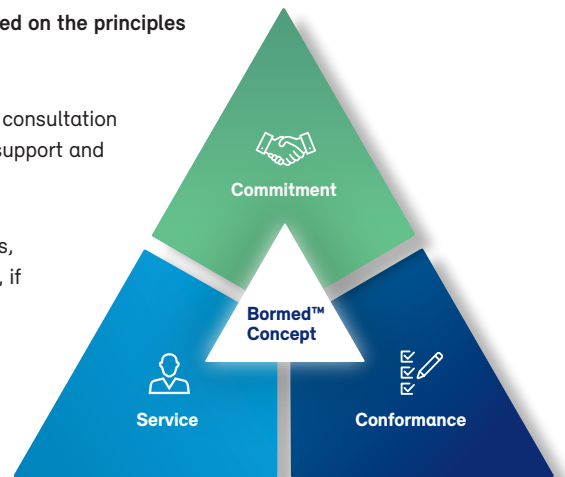
The Bormed™ Concept

With over 35 years of experience in the healthcare industry, Borealis Bormed™ is founded on the principles of service, commitment and conformance – Because we care.

Service: Get specialised project support from start to finish, including one-to-one expert consultation and unrivalled access to data that goes beyond product data sheet. By providing global support and thorough market understanding, we help you answer any challenge.

Commitment: Address your sustainability challenges and work towards long term success, with our grades remaining unchanged. While we are committed to the grades as they are, if they require changing, we will provide up to five years' availability.

Conformance: Conform and adapt to current and future regulatory requirements around the world with Bormed. This safeguards your investment and enables significant cost savings over a project's lifetime, offering you independent pharmacopeia and ISO10993 analysis reports, and extractable testing data.



The Bormed Concept delivers

- Consistency of product recipe via rigorous change control procedure
- Bormed Directive: Operating instructions for the development, production, storage and delivery to the end customer of Bormed
- Continuity of supply to mitigate the risk of a change during your product life cycle: In case of change, product made available up to 5 years (2 years pre-notification and a last call volume combined with 3-year shelf life)
- Pharmacopeia compliance: Regular external testing of Ph. Eur., USP and ISO 10993 – analysis reports can be shared upon request; US DMF listing; following VDI 2017 guideline on "Medical Grade Plastics"
- Externally tested extractable profiles that can be shared upon request (under NDA) and can support your E&L testing programme
- Specific technical support given during the project development phase
- Moldflow data and other rheological characteristics
- Globally active dedicated team of experienced technical and regulatory specialists
- Bormed InCompounds: For tailor-made, customised solutions by partnering with trusted and recognised healthcare compounders (at present Avient, MELITEK, MOCOM and Wittenburg Group)

Embrace circularity

Bornewables™ & Borcycle™ C

Meet your sustainability targets with ISCC Plus-certified polyolefins produced from renewable or chemically recycled feedstocks. The Bornewables™ and Borcycle™ C offer the same material performance and regulatory compliance as virgin Bormed medical grades.



The Bornewables

The Bornewables offers circular Bormed polyolefins with a reduced carbon footprint and are produced with renewable feedstock derived entirely from waste and residue streams.



Borcycle C

Borcycle C is the chemically recycled line of Bormed and renews plastic back to plastic, giving polyolefin-based, post-consumer waste another life.

About Borealis Borealis is one of the world's leading providers of advanced and circular polyolefin solutions and a European market leader in base chemicals, fertilizers and the mechanical recycling of plastics. We leverage our polymers expertise and decades of experience to offer value adding, innovative and circular material solutions for key industries. In re-inventing for more sustainable living, we build on our commitment to safety, our people and excellence as we accelerate the transformation to a circular economy and expand our geographical footprint.

With head offices in Vienna, Austria, Borealis employs 6,900 employees and operates in over 120 countries. In 2021, Borealis generated total sales and other income of EUR 10,153 million and a net profit of EUR 1,396 million. OMV, the Austria-based international oil and gas company, owns 75% of Borealis, while the remaining 25% is owned by a holding company of the Abu-Dhabi based Mubadala. We supply services and products to customers around the globe through Borealis and two important joint ventures: Borouge (with the Abu Dhabi National Oil Company, or ADNOC, based in UAE), and Baystar™ (with TotalEnergies, based in the US).

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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.

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