



Product News

Introducing Bormed™ PL8830-PH

The first medical grade plastomer solution for the healthcare industry

The global healthcare market depends on the reliable and secure supply of controlled raw materials which must fulfil especially demanding standards in regard to safety, biocompatibility, toxicity and more. Security of supply drives the risk management decision-making process along the entire pharmaceutical value chain.

Our range of Bormed™ polyethylene (PE) and polypropylene (PP) grades for rigid and flexible products in the healthcare industry enables our customers to meet the technical requirements for a wide variety of end uses, including those for medical devices, diagnostic consumables and labware as well as pharmaceutical packaging.

This dedicated range has been expanded with the introduction of the **first medical grade plastomer solution** for the global healthcare market, **Bormed™ PL8830-PH**. This controlled grade is also included in our **Bormed™ Concept** service package encompassing Service, Commitment, and Conformance.

Thanks to this portfolio enlargement, Borealis now has one of the **largest product offerings** for the global healthcare market. We are currently the **only raw material supplier** to offer a medical grade that can **bridge the gap** between thermoplastics and elastomers.

Keep Discovering

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Borouge

Pushing the envelope on performance for healthcare applications



Bormed PL8830-PH is an ethylene-based, octene-1 plastomer produced using a metallocene catalyst in a solution polymerisation process. It has been developed to be used as a versatile blend partner with other polyolefins in film, extrusion and moulding applications.

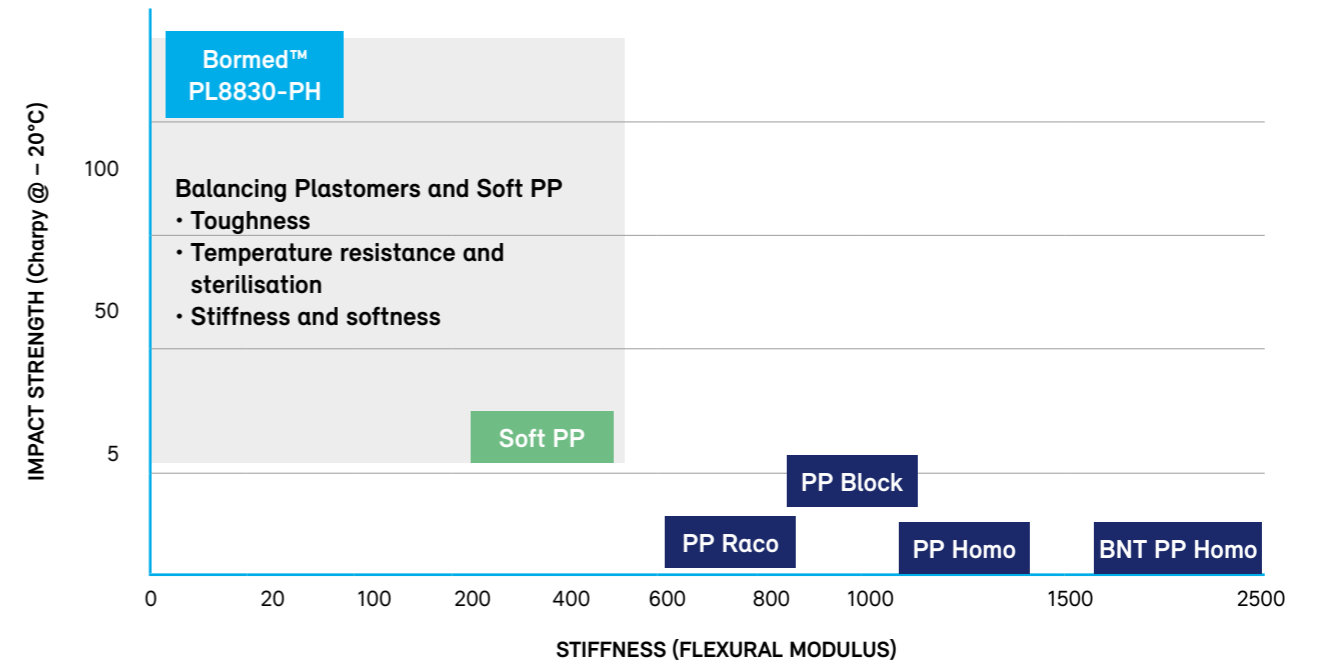
Because it is a reactor polymer, it boasts the very highest and most consistent quality. This medical grade plastomer offers:

- The outstanding flexibility of an amorphous polymer
- Narrower melting ranges
- Higher level of filler acceptance
- The cost-per-volume advantage of low-density polymers
- Excellent performance at very low temperatures.

The use of Bormed PL8830-PH yields advantages across the board, from manufacturer to end user:

- **High-performance:** offers tailored performance attributes to meet the most stringent application requirements when blended with other Bormed medical grades.
- **High pack integrity:** can be achieved even at low temperatures, helping prevent damage to receptacles such as pouches, and producing a tight seal which reduces risk of outside contamination.
- **Simplified approval processes:** because it contains very low levels of antioxidants but no other additives, less effort is required to evaluate potential interaction between the application or packaging material itself, and its contents.
- **Potential cost savings:** helps reduce manufacturing costs because it allows significant reduction of nonpolyolefin impact modifiers used to achieve performance properties like impact strength.
- **Enhanced sustainability:** using Bormed PL8830-PH instead of non-polyolefins yields a mono-material solution which is more easily recyclable.

Bormed™ PL8830-PH and soft PPs



Bormed™ PL8830-PH Table of Characteristics

| Physical properties | Typical Value* | Unit | Test method |
|---------------------------------------|----------------|-------------------|-------------|
| Density | 883 | kg/m ³ | ISO 1183-1 |
| Melt flow rate (230 °C/2.16 kg) | 1,1 | g/10min | ISO 1133-1 |
| Flexural modulus | 23 | g/10min | ISO 178 |
| Melting temperature | 148 | °C | ISO 11357-3 |
| Vicat softening temperature A50 (10N) | 51 | °C | ISO 306 |

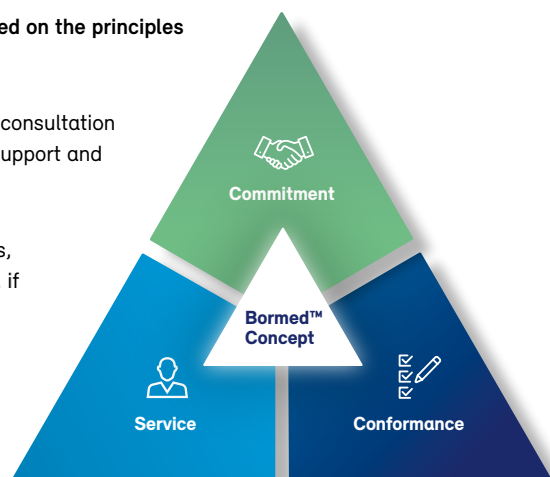
The Bormed™ Concept

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. OMY, 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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Borealis AG

Trabrennstraße 6-8, A-1020 Vienna, Austria
Tel +43 1 22 400 000, Fax +43 1 22 400 333
borealisgroup.com

