PRODUCT DATA SHEET

03.08.2026 Ed.1

Polyethylene

Bormed™ HE2581-PH

High Density Polyethylene

Description

Bormed™ HE2581-PH is a bimodal high density polyethylene intended for evaluation for use in Healthcare applications.

Bormed™ HE2581-PH is typically used for blow moulding of articles up to 10 litres. This grade is characterised by easy processing and results in products with high stiffness and very good environmental stress crack resistance (ESCR). Material can also be used for containers produced with IBM technology. Bormed HE2581-PH can be sterilised with ethylene oxide, steam and radiation; as a result of sterilisation by radiation some minor yellowing can occur

Cas No. 25087-34-7

Typical characteristics

Easy processing

High ESCR

Applications

Bormed™ HE2581-PH has been evaluated according to different regulations and standards. Typical applications are mentioned below for medical and diagnostic devices or pharmaceutical packaging. However, Borealis should be consulted for final approval to evaluate the use of Bormed™ HE2581-PH.

Bottles for IV-solutions

Bottles for irrigation solutions

Bottles and containers for tablets, powder or granules

Containers for fine chemicals or APIs

The customer should be aware that Bormed™ products may only be used in applications which are pre-approved for evaluation by Borealis received in the form of a risk assessment form (RAF) review response. Without such pre-approval, no use of the grade shall be made. In case of doubt, the customer should seek pre-approval for evaluation from Borealis to proceed through their sales or technical contact. Borealis makes no warranties beyond what is contained in this product datasheet and the customer is responsible for reading and accepting the disclaimer as contained in this product datasheet.

Physical properties

Property	Typical value *	Unit	Test method
Density	958	kg/m³	ISO 1183-1/Method A
Melt flow rate (190 °C/2.16 kg)	0.3	g/10min	ISO 1133-1
Flexural modulus	1100	MPa	ISO 178
Environmental stress crack resistance (Igepal 10%, F50)	1000	h	ASTM D 1693-B
Hardness, Shore D	62	-	ISO 868
Heat deflection temperature B (0.45 MPa)	60	°C	ISO 75-2
Melting temperature	132	°C	ISO 11357-3
Tensile modulus	1050	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	8	%	ISO 527-2
Tensile stress at yield (50 mm/min)	28	MPa	ISO 527-2

* Data should not be used for specification work

Processing techniques

Following parameters should be used as guidelines:

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Bormed™ HE2581-PH

Processing setting	Typical value/range
Barrel temperature	170 - 190 °C
Die temperature	175 - 190 °C
Melt temperature	170 - 200 °C

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

Packaging and storage

Bormed™ HE2581-PH should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which can result in odour generation and colour changes and can have negative effects on the physical properties of this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency.

Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

Disclaimer

The product(s) mentioned herein are not intended for use as medical implant material or implantable medical devices and we do not support their use for such applications.
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.
Borealis 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 any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

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