

Polyethylene

Bormed™ HE2581-PH

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 up to 35 kGy; as a result of sterilisation by radiation some minor yellowing can occur.

CAS-No. 25087-34-7

Applications

Bormed HE2581-PH has been evaluated according to different regulations and norms. 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 and containers for tablets, powder or granules
Bottles for IV-solutions

Bottles for irrigation solutions
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.

Special Features

Easy processing

High ESCR

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	958 kg/m ³	ISO 1183-1, Method A
Melt Flow Rate (190 °C/2,16 kg)	0,3 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	1.400 MPa	ISO 178
Tensile Modulus (1 mm/min)	1.300 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min)	8 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	29 MPa	ISO 527-2
Melting temperature (DSC)	131 °C	ISO 11357-3
Heat Deflection Temperature (0,45 MPa)	80 °C	ISO 75-2
Environmental Stress Crack Resistance (Antarox 10 %, F50)	100 h	ASTM D 1693-A
Hardness, Shore D	63	ISO 868

Processing Techniques

Following parameters should be used as guidelines:

Bormed HE2581-PH is easy to extrude and can be used in all conventional blow-moulding machines.

Barrel	170 - 190 °C
Die	175 - 190 °C
Melt temperature	170 - 200 °C

Bormed is a trademark of the Borealis group.

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Storage

Bormed HE2581-PH should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Following aforementioned conditions the material can be stored for a period of up to 3 years after production. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

Safety

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis 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

For general and grade specific compliance documents please see Borealis' homepage www.borealisgroup.com or ask your Borealis representative.

Issuer:

Marketing Healthcare / Niya Petzold
Product Management / Gabriele Poinsitt

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.