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PRODUCT DATA SHEET

Polypropylene

Bormed™ HG820MO

Polypropylene Homopolymer

Description

Bormed HG820MO is a polypropylene homopolymer intended for evaluation for use in Healthcare applications.

This clarified grade with high stiffness is typically used in injection moulding. Additivation has been optimised to provide good demoulding properties. This polymer is a controlled rheology grade with narrow molecular weight distribution giving low risk of warpage. It offers potential replacement for engineering polymers (e.g. POM, ABS, PC) with its high stiffness and good flow characteristics.

The Bormed concept is based on the three core principles of service, commitment and conformance which cover the different aspects of active information management, change control and security of supply. Because we care.

As part of the Bormed product portfolio, in case of notifiable change the grade can be made available up to 5 years (2 years pre-notification and last call volume with 3 years shelf life); subject to mutual agreement.

Cas No. 9003-07-0

Typical characteristics

Bormed™ HG820MO can be described with following typical characteristics:

- Easy processing
- Good transparency
- Very high stiffness
- Sterilisation: EtO; steam

Applications

Bormed™ HG820MO 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™ HG820MO.

- Diagnostic consumables and labware (e.g. pipette tips, tubes)
- Diagnostic devices (e.g. Point of Care)
- Disposable 3-part syringes
- Medical devices
- Packaging for pharmaceutical, medical device & diagnostic products

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
Melt flow rate (230 °C/2.16 kg)	28	g/10min	ISO 1133-1
Flexural modulus	1800	MPa	ISO 178
Tensile modulus (1 mm/min)	1900	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	7	%	ISO 527-2
Tensile stress at yield (50 mm/min)	40	MPa	ISO 527-2
Charpy impact strength, notched (23 °C)	2	kJ/m²	ISO 179-1/1eA
Melting temperature	162	°C	ISO 11357-3
Heat deflection temperature B (0.45 MPa)	100	°C	ISO 75-2

* Data should not be used for specification work

Processing techniques

This product is easy to process with standard injection moulding machines. Following parameters should be used as guidelines:

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Polypropylene

Bormed™ HG820MO

Processing setting	Typical value/range
Melt temperature	210 - 260 °C
Holding pressure [1]	200 - 500 bar
Mould temperature	30 - 40 °C
Injection speed	medium to high

[1] *Minimum to avoid sink marks.*

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

Packaging and storage

Bormed HG820MO 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.

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.

Borealis AG | Trabrennstrasse 6-8 | A-1020 Vienna | Austria
Telephone: +43 1 22 400 0* | Fax: +43 1 22 400 333
www.borealisgroup.com

Borouge Pte Ltd | 1 George Street | # 18-01 | Singapore 049145
Telephone: +65 6275 4100 | Fax: +65 6377 1233
www.borouge.com

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