



Polypropylene HH450MO

Description

HH450MO is a polypropylene homopolymer intended for injection moulding.

This grade is especially suitable for high-speed injection moulding of articles demanding easy flow. The material has a narrow molecular weight distribution resulting in products with low warpage.

Applications

Pipette tips
Plungers for 3-part disposable syringes
Closures
Laboratory disposable

Bottles and containers for tablets
Bottles and containers for powder
Bottles and containers for granules

This grade may only be used for the applications listed in the Product Datasheet and only to the extent that the application is within the scope of the tests set out in the Statement on Compliance to Regulations on Medical Use for that grade. If an application is not listed in the Product Datasheet, the grade can be used for such application only after express written consent of the Borealis Marketing Manager, Healthcare.

Borealis prohibits the use of any healthcare grade product in an implantable device that is introduced into the human body by surgical intervention and that is intended to remain in place following surgical procedure.

Special features

Low viscosity
Low warpage

Low extractables

Physical Properties

| Property | Typical Value | Test Method |
|---|--|-------------|
| | Data should not be used for specification work | |
| Density | 902 kg/m ³ | ISO 1183 |
| Melt Flow Rate (230 °C/2,16 kg) | 37 g/10min | ISO 1133 |
| Tensile Modulus (1 mm/min) | 1.650 MPa | ISO 527-2 |
| Tensile Strain at Yield (50 mm/min) | 9 % | ISO 527-2 |
| Tensile Stress at Yield (50 mm/min) | 34 MPa | ISO 527-2 |
| Heat Deflection Temperature | 80 °C | ISO 75-2 |
| Charpy Impact Strength, notched (23 °C) | 2 kJ/m ² | ISO 179/1eA |

Processing Techniques

Following parameters should be used as guidelines:

This product is easy to process with standard injection moulding machines.

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| | | |
|------------------------|---------------|------------------------------|
| Melt temperature range | 220 - 260 °C | |
| Holding pressure | 200 - 500 bar | Minimum to avoid sink marks. |
| Injection speed | High | |

Storage

HH450MO should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation with resulting odour generation and colour changes.

Safety

The product is not classified as dangerous. 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

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"
 Recovery and disposal of polyolefins
 Statement on chemicals, regulations and standards
 Statement on polymer additives and BSE
 Statement on compliance to food contact regulations

Disclaimer

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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