PRODUCT DATA SHEET

11.04.2025 Ed.3

Polypropylene

Borealis RE420MO

Polypropylene Random Copolymer

Description

RE420MO is a specially modified transparent polypropylene random copolymer with medium melt flow rate.
This grade is intended for injection moulding and injection stretch blow moulding. It is designed for high-speed injection moulding applications and contains nucleating and demoulding additives.

Products originating from this grade are characterised by excellent transparency, very good organoleptic properties, superior impact/stiffness balance at ambient temperature in combination with low blooming and good demoulding properties.

Cas No. 9010-79-1

Typical characteristics

Borealis RE420MO can be described with following typical characteristics:

- Very good stiffness and impact balance
- Low blooming
- Improved gloss and excellent transparency
- Good organoleptics

Applications

Borealis RE420MO is intended for following applications:

- Caps and closures for beverage and food
- Caps and closures for non-food applications
- Houseware containers
- Lids
- Pails
- Baby bottles

Physical properties

Property	Typical value *	Unit	Test method
Density	905	kg/m³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	13	g/10min	ISO 1133-1
Flexural modulus	1150	MPa	ISO 178
Tensile modulus (1 mm/min)	1100	MPa	ISO 527-2
Tensile stress at yield (50 mm/min)	28	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	12	%	ISO 527-2
Heat deflection temperature B (0.45 MPa) [1]	75	°C	ISO 75-2
Charpy impact strength, notched (23 °C)	6	kJ/m²	ISO 179-1/1eA

* Data should not be used for specification work

[1] *Measured on injection moulded specimens acc. to ISO 1873-2*

Processing techniques

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

Processing setting	Typical value/range
Melt temperature	210 - 260 °C
Holding pressure [2]	200 - 500 bar
Mould temperature	12 - 20 °C
Injection speed	High

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[2] *Minimum to avoid sink marks.*

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

Packaging and storage

Borealis RE420MO 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 to be used for medical, pharmaceutical or healthcare applications 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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