



PRODUCT NEWS

# Borealis BH381MO

unique stiffness  
impacts sustainability



BOREALIS

بروج  
Borouge



## PRODUCT NEWS



Stiffness, impact and flow properties make BH381MO especially suited for big pails.

### High top load and good drop impact – ideal for pails

Borealis BH381MO is the solution for pails and other applications needing high stiffness together with good flow and impact. A tensile modulus of 1700 MPa, more than 150 MPa higher than that of similar standard grades, gives excellent top load performance also in higher temperatures, making the product ideal especially for hot filling applications.

Borealis BH381MO is produced through a combination of Borealis Borstar® PP polymerisation technology and Borstar® nucleation technology (BNT) to achieve this one-of-a-kind balance of properties. In addition to excellent stiffness, the product offers very good impact properties to ensure high drop performance and good pail quality.

### Good flowability and economical production

Borealis BH381MO has a melt flow rate (MFR) of 35g/10 min, but behaves like traditional MFR 45 grades due to the special polymer design. In addition to high flowability BNT offers very fast crystallisation and cooling of the material.

This combination of characteristics allows for lower processing temperatures and lower injection pressure including the ability to fill more complex parts. Lower processing temperatures and fast cooling result in reduced cycle time, leading to energy and cost savings.



BH381MO offers good processing and excellent mechanical performance.

## PRODUCT NEWS

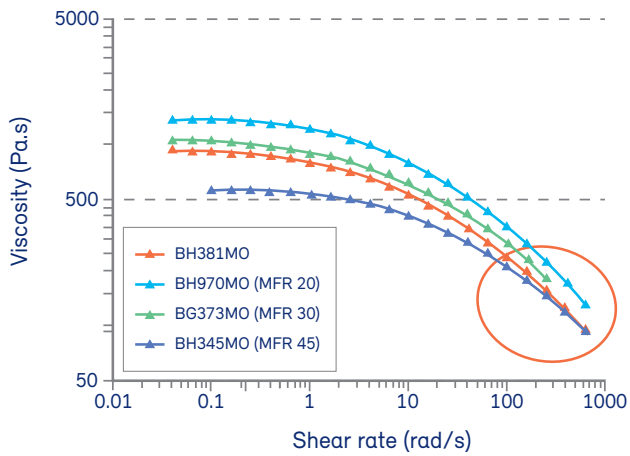


Figure 1: Flowability of Borealis BH381MO vs Borealis BH345MO (MFR 45)

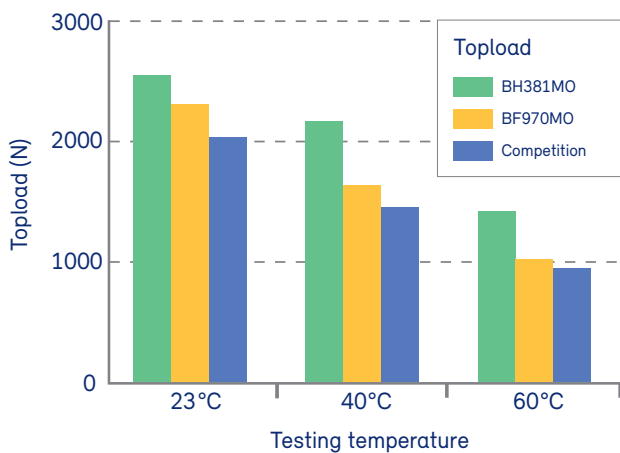


Figure 2: Top load performance of Borealis BH381MO in elevated temperatures, tested in 5l pails

## Recommended application areas

- Pails for food and paint, DIY and other consumables
- Pails for hot filling applications
- Houseware
- Caps & closure applications
- Coffee capsules
- Other applications requiring high stiffness and/or HDT without sacrificing excellent impact properties

## Benefits throughout the value chain

- Good top load, stacking and drop performance of finished pails of all sizes
- High stiffness, good flowability and good impact enables down gauging and weight reduction
- Energy and cost savings due to the lower processing temperatures and faster cooling and cycle times, and reduced carbon footprint thereof

Property	BH381MO	BF970MO	BH374MO	Unit
MFR	35	20	45	g/10 min
Tensile modulus	1,700	1,500	1,500	MPa
Charpy 23°C	7	8.5	6.5	kJ/m <sup>2</sup>
Charpy 20°C	4	4.5	4	kJ/m <sup>2</sup>
HDT (0.45 N/mm <sup>2</sup> )	108	105	96	°C

## Making everyday life easier | Date of issue: September 2022

**About Borealis** Borealis is one of the world's leading providers of advanced and circular polyolefin solutions and a European market leader in base chemicals, fertilizers and the mechanical recycling of plastics. We leverage our polymers expertise and decades of experience to offer value adding, innovative and circular material solutions for key industries. In re-inventing for more sustainable living, we build on our commitment to safety, our people and excellence as we accelerate the transformation to a circular economy and expand our geographical footprint.

With head offices in Vienna, Austria, Borealis employs 6,900 employees and operates in over 120 countries. In 2021, Borealis generated total sales and other income of EUR 10,153 million and a net profit of EUR 1,396 million. OMV, the Austria-based international oil and gas company, owns 75% of Borealis, while the remaining 25% is owned by a holding company of the Abu-Dhabi based Mubadala. We supply services and products to customers around the globe through Borealis and two important joint ventures: Borouge (with the Abu Dhabi National Oil Company, or ADNOC, based in UAE); and Baystar™ (with TotalEnergies, based in the US).

[www.borealisgroup.com](http://www.borealisgroup.com) | [www.borealiseverminds.com](http://www.borealiseverminds.com)

**Disclaimer** The information contained herein is to our knowledge accurate and reliable as of the date of publication. Borealis and Borouge extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the consequences of its use or for any errors. It is the customer's responsibility to inspect and test our products in order to satisfy himself as to the suitability of the products for the customer's particular purpose. The customer is also responsible for the appropriate, safe and legal use, processing and handling of our products. Nothing herein shall constitute any warranty (express or implied, of merchantability, fitness for a particular purpose, compliance with performance indicators, conformity to samples or models, non-infringement or otherwise), nor is protection from any law or patent to be inferred. Insofar as products supplied by Borealis and Borouge are used in conjunction with third-party materials, it is the responsibility of the customer to obtain all necessary information relating to the third-party materials and ensure that Borealis and Borouge products, when used together with these materials, are suitable for the customer's particular purpose. No liability can be accepted in respect of the use of Borealis and Borouge products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third-party materials.

Borstar is a registered trademark of the Borealis Group. Borlink is a trademark of the Borealis Group.

### FOR MORE INFORMATION:

visit [www.borealisgroup.com](http://www.borealisgroup.com) and [www.borouge.com](http://www.borouge.com)

#### Borealis AG

Trabrennstr. 6-8 · A-1020 Vienna · Austria

Tel +43 1 22 400 000 · Fax +43 1 22 400 333

**Borouge Pte Ltd** · Sales and Marketing Head Office

1 George Street 18-01 · Singapore 049145

