

SUMMARY DATA SHEET

# Solutions for thermoforming applications



BOREALIS

بروج  
Borouge



Product name	MFR (g/10 min)	Melting point (°C)	Flexural modulus (MPa)	Charpy 23°C (kJ/m2)	Charpy -20°C (kJ/m2)	HDT 0.45 MPa (°C)	Vicat A50 (°C)	Characteristics	Typical applications/key properties
PP homopolymers									
HB600TF	2	168	1300	3		80	155		Good melt stability and thermoforming behavior. Suitable for margarine tubs, dairy and food packaging cups, containers and trays, blister packaging, and confectionery packaging.
HC600TF	2.8	164	1500	4		85	154		Good melt stability and thermoforming behavior. Suitable for food packaging cups, containers, trays, lids, and colored applications.
HC609TF	3	167	2050	3		118		NU, AS	Good stiffness and thermoforming behavior. Compatible with high processing speeds. Suitable for margarine tubs, dairy and food packaging cups, containers, trays, and lids.
HC205TF	4	163	1700	4		105	155	BNT	Good stiffness and thermoforming behavior. Compatible with high processing speeds. Suitable for margarine tubs, dairy and food packaging cups, containers, trays, and lids.
PP random copolymers									
RB707CF	1.5	145	900	25		70	127	NU	Excellent transparency and 'see-through' clarity. Suitable for food packaging cups, containers and trays, blister packaging, and lids with good resistance to splitting.
RB501BF	1.9	140	700	8.5		60	125		Good thermoforming behavior. Suitable for food packaging cups, containers, and trays.
PP heterophasic (block) copolymers									
BB213CF	1.1	164	1100	46	2.5	70	148		Good melt stability and thermoforming behavior. Good low temperature resistance. Suitable for freezer and microwave food packaging.
BC918CF	3	168	1400	45	1.2	90	153	NU	High transparency, good stiffness and impact resistance at low temperatures. Suitable for MAP trays, transparent lids with good resistance to splitting, microwave and freezer food packaging.
BC245MO	3.5	166	1250	15	6.5	85	152	NU, AS	Balanced stiffness and impact resistance at low temperatures. Suitable for food packaging cups, containers, and freezer trays.
BD212CF	5	164	950	7	2.5	70	146		Reduced shrinkage and low temperature resistance. Suitable for food packaging cups, containers, freezer trays, and high-impact lids.
PP Homopolymers (foam application)									
WB140HMS	2.1	163	1900	3	1	110	155		Good insulation properties of foamed materials. Good thermal and acoustic insulation properties. Foamed applications in automotive, food and non-food packaging, building and construction. Excellent processability.

# Key benefits of polyolefin thermoforming solutions

Built on decades of experience, our portfolio of thermoforming resins meets the needs of a wide range of applications—from drinking cups and lids to food packaging. This expertise is complemented by our Technology Center, where we work closely with customers to develop tailored solutions to enhance performance, efficiency, and sustainability in specialized applications.



## 1. They offer high formability and design flexibility, enabling:

- Precise shaping with sharp details and complex geometries
- Uniform wall thickness in deep-draw applications
- Lightweight designs with good structural integrity

## 2. They provide superior mechanical strength and impact resistance, providing:

- Excellent toughness and durability in rigid packaging applications
- Resistance to cracking, ensuring product safety during handling and transport
- Suitability for high load-bearing applications

## 3. They enable efficient processing and cycle time reduction, through:

- Optimized material flow properties that support high-speed thermoforming
- Lower processing temperatures, leading to reduced energy consumption
- Stable and repeatable forming processes, minimizing waste and scrap

## 4. They offer excellent heat resistance and thermal stability, making them ideal for:

- Hot-fill and microwaveable packaging applications
- Pasteurization and retort processes
- Applications requiring resistance to warping and deformation at high temperatures

## 5. They advance sustainability and recyclability, supporting:

- Mono material solutions that are easy to recycle
- Reduced material usage due to thinner yet strong walls
- Eco-friendly designs with reduced carbon footprints

## 6. They enhance packaging differentiation and brand presentation, due to:

- A smooth and uniform surface for high-quality printing and decoration
- Compatibility with multiple printing techniques, including digital, IML, flexographic, and offset
- Easy labelling and unique design opportunities





## Our partners can also benefit from the **Bornewables™** and **Borcycle™ C** versions of all our thermoforming grades.

### Accelerating action on circularity with the **Bornewables™** and **Borcycle™ C** ISCC PLUS-certified polyolefins

Meet your sustainability targets with materials made from renewable or chemically recycled feedstocks that deliver the same material performance and regulatory compliance as virgin grades.

#### The Bornewables

The Bornewables is our portfolio of premium polyolefins made from renewable feedstocks derived entirely from waste and residue streams. They provide the same excellent quality as fossil-based materials while reducing carbon emissions.



#### Borcycle C

Borcycle C is our portfolio of virgin-equivalent polyolefins based on post-consumer waste. Created using advanced chemical recycling technology, these materials are ideal for high-performance and contact-sensitive applications, helping to meet the requirements of the European Packaging and Packaging Waste Regulation (PPWR).





## Borealis and Borouge packaging solutions are making everyday life easier

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Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. In Europe, Borealis is also an innovative leader in polyolefins recycling and a major producer of base chemicals. We leverage our polymer expertise and decades of experience to offer value-adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility.

With operations in over 120 countries and head offices in Vienna, Austria, Borealis employs around 6,000 people. In 2022, we generated a net profit of EUR 2.1 billion. OMV, the Austria-based international oil and gas company, owns 75% of our shares. The Abu Dhabi National Oil Company (ADNOC), based in the United Arab Emirates (UAE), owns the remaining 25%.

In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy of polyolefins and expanding our geographical footprint to better serve our customers around the globe. Our operations are augmented by two important joint ventures: Borouge (with ADNOC, headquartered in the UAE), and Baystar™ (with TotalEnergies, based in the US).

[borealisgroup.com](https://borealisgroup.com) | [borealiseverminds.com](https://borealiseverminds.com)

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