Key trends and answers
in the flexible packaging film industry

An overview of key trends driving the flexible packaging film industry might begin with the issue of food safety and freshness. The amount of available arable land is finite, yet global demand for food is growing. The agriculture industry must seek out the most efficient methods of getting more food to the table – faster and fresher than ever before. Polyolefins will maintain their principal role as the backbone of most packaging solutions because they can best safeguard the quality and shelf life of food, and can fulfil increasingly stringent regulatory and legislative requirements. What is more, polyolefins can help make enhanced functionalities possible, such as peelability, breathability, and sterilisability; they also boast high barrier and light blocking properties, and are microwavable.

As convenience continues to drive the industry, consumers want packaging that not only retains freshness, but is easy to open and reseal. Demand for long-life food products is also bolstering the trend towards retortable plastic packaging. Brand owners aim to differentiate their product from those of their competitors by way of aesthetically appealing packaging.

Another key driver is sustainability. In the true spirit of **EverMinds™**, Borealis is a frontrunner in helping to build a circular economy for plastics.

As brand owners respond to legislative and regulatory pressure by downgauging, design for recycling, increasing recycled content and reducing reliance on fossil-fuel based feedstocks, polyolefins play an essential role as enabler by making products lighter, recyclable, more climate friendly and eco- & cost efficient.

Borealis, together with its wholly-owned recycling subsidiaries, mtm plastics and Ecoplast, is an integral player in the industry working together along the value chain to accelerate the transformation from a linear to a circular economy.

Many packaging structures have traditionally used multi-material laminates which can be very difficult to recycle in mechanical recycling processes, while polyolefins (PE and PP) are an ideal material for designing flexible and rigid packaging that can be recycled.

Design for recycling shall deliver high-quality mono-material recycle streams which can then be incorporated into various next-step PE and PP structures.

The **Bornewables™** is a portfolio of circular polyolefin products, manufactured with second generation renewable feedstock, providing a carbon footprint reduction while offering equally high material performance.

Borcycle™ C is a portfolio of virgin-like polyolefins from chemically recycled post-consumer waste.

To learn more about how Borealis can help you create more sustainable solutions, please contact your Borealis representative.

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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).

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FOR MORE INFORMATION:
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BOREALIS Borouge

SUMMARY DATA SHEET

Solutions for Biaxially Oriented Film (BOPP)

BOREALIS Borouge

Summary Data Sheet for
Biaxially Oriented Film (BOPP)

	Product name	Polymer type	MFR (230, 2.16) g/10 min	MWD N M B	Slip agent	Additives Anti-block	Ca-stearate	S.I.T. (°C)	Melting temp. (°C)	Key properties	End-use applications
Core layer	HC101BF	Homopolymer	3.2	B						Excellent mechanical properties, easy stretchability	High quality packaging films
	HC113BF	Homopolymer	3.2	B			•			Excellent mechanical properties, high cleanliness	Cavitated film, siliconisable film
	HC110BF	Homopolymer	3.2	B			•			High crystalline version of HC101BF, increased stiffness, lower shrinkage (improved barrier properties)	Lamination film, label film
	RB501BF	Random copolymer	1.9	M			•			High shrinkage, easy processing especially in double bubble process	Shrink film
Sealing layer	TD310BF	Terpolymer	6	M		•		105	131	Excellent balance between high melting temperature and low seal initiation temperature, low extractables, good processing on high speed BOPP lines	Packaging film, metallisable film, lamination film
	TD312BF	Terpolymer	6	B		•	•	105	131		Multi purpose packaging film, label film, lamination film
	TD315BF	Terpolymer	6	M	•	•	•	105	131		Multi purpose packaging film for VFFS and HFFS packaging lines

Test methods
Melt Flow Rate (230, 2.16) g/10 min = ISO 1133
S.I.T. = Borealis method (Seal Initiation Temperature)

Abbreviations
N = Narrow
M = Medium
B = Broad

For Technical Data Sheets, Safety Data Sheets and Product Liability Statements please visit us at: www.borealisgroup.com and www.borouge.com or contact your Borealis or Borouge representative.