

PRODUCT NEWS

Borealis HG485FB based on the Borstar® Nextension Technology

Spunbond grade designed to reduce the weight of nonwovens



BOREALIS

بروج

Borouge



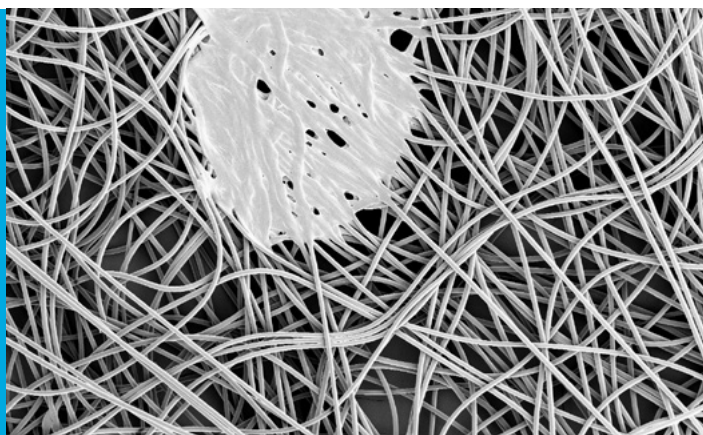


Borealis HG485FB provides the same functionality while using fewer resources addressing sustainability

Borealis HG485FB is a spunbond grade based on Borstar® Nextension Technology. Designed for the spunbond processes, it enhances the production of nonwovens. With its broad processing window and excellent spinning performance, converters can push the operating window in optimisation of web properties, web coverage and strength. Compared to conventional resins, Borealis HG485FB provides substantial downgauging potential. This allows for more efficient use of resources while maintaining the same high functionality.

Key benefits of Borealis HG485FB

- ⊖ Nonwovens weight reduction / downgauging
- ⊖ CO₂ reduction
- ⊖ Improved tensile strength
- ⊖ Increased softness
- ⊖ Fewer volatiles
- ⊖ Less frequent plant cleaning



Trials performed at the Reicofil 5 pilot line show excellent processing and web properties

Single beam, 13gsm			
Trial info	Reference Borealis grade 240kg/m/h (253°C)	Borealis HG485FB* 240kg/m/h (253°C)	Borealis HG485FB* 160kg/m/h (266°C)
Denier	1.7	1.3	0.95
Machine direction tensile (N/5cm)	23.1	33.7	42.8
Cross direction tensile (N/5cm)	16.7	19.4	24.7
Fine fibre capability	0	+	++
Web mechanicals	0	+	++

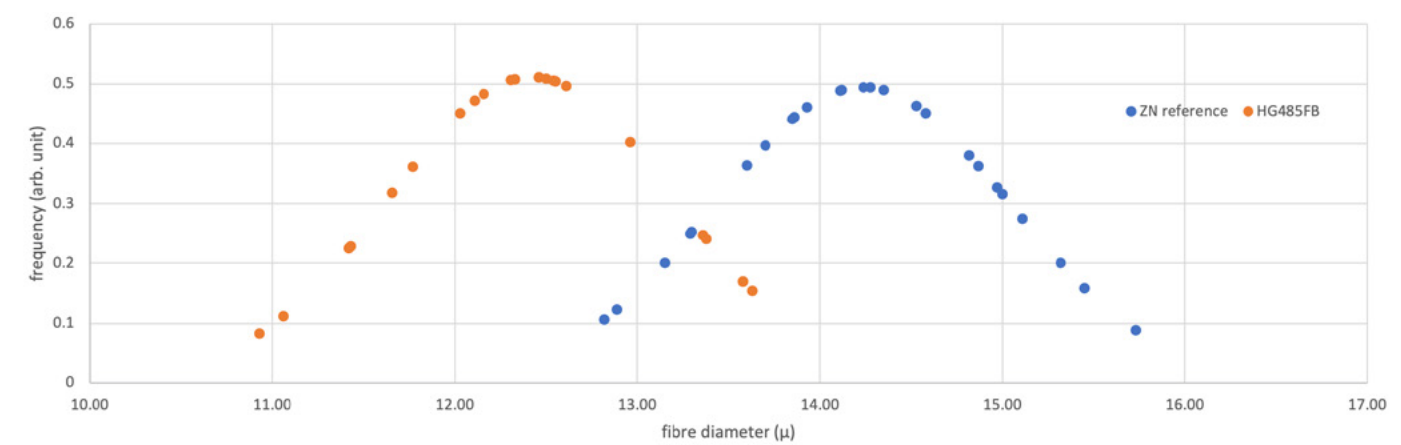
*Laydown not optimised yet

Tripple S, 13gsm			
Trial info	Reference Borealis grade 240kg/m/h (253°C)	Borealis HG485FB* 240kg/m/h (253°C)	Borealis HG485FB* 160kg/m/h (266°C)
Denier	1.6	1.4	0.97
Machine direction tensile (N/5cm)	30.5	31.2	38.9
Cross direction tensile (N/5cm)	12.3	14.1	21.0
Fine fibre capability	0	0+	+
Web mechanicals	0	0+	+

*Laydown not optimised yet

Legend
0 the same neutral + better
0+ slightly better ++ significantly better

Fibre size distribution





Powered by Borstar®

**Nextension
Technology**

Borstar® Nextension Technology

The Borstar® Nextension Technology is a breakthrough innovation achieving a step change for polypropylene (PP) performance. It yields synergistic effects resulting from the combination of proven Borstar performance based on multimodality and the controlled incorporation of the comonomer and the novel, single-site Borstar Nextension catalysts.

The technology broadens the range of PP properties thanks to its ability to tailor polymers for:

- **Packaging and Healthcare applications** with unrivalled higher purity, excellent transparency and optics after sterilisation, as well as superior sealing and bonding at lower temperatures.
- **Fibre applications** with nonwovens weight reduction / downgauging, improved tensile and increased softness.
- **Mobility applications** with purity levels beyond today's automotive industry requirements with reduced odour and volatiles in automotive interior and exterior applications.

In addition, the groundbreaking proprietary technology drives plastics circularity by simplifying **Design for Recycling (DfR)**. It sets new standards by enabling material substitution in multilayer, multimaterial-based applications in a range of industries.

For customers, the Borstar Nextension Technology opens exciting new horizons for PP by uniting outstanding performance characteristics with enhanced circularity.



Borealis and Borouge packaging solutions are making everyday life easier

date of issue: March 2023

Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions and a European front-runner in polyolefins recycling. In Europe, we are a market leader in base chemicals and fertilizers. 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. 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.

With head offices in Vienna, Austria, we employ 6,900 employees and operate in over 120 countries. In 2021, we generated total sales of EUR 12.3 billion and a net profit of EUR 1,396 million. OMV, the Austria-based international oil and gas company, owns 75% of our shares, while the remaining 25% is owned by Abu Dhabi National Oil Company, or ADNOC, based in the United Arab Emirates (UAE). We supply services and products to customers around the globe through Borealis and two important joint ventures: Borouge (with ADNOC, headquartered in the UAE); and Baystar™ (with TotalEnergies, based in the US).

borealisgroup.com • borealisseverminds.com

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