

PRODUCT NEWS

Borstar® FB5560

High-density polyethylene grade for high-performance blown film applications



BOREALIS

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Borouge



Description

Borstar® FB5560 is a high-density polyethylene (HDPE) grade for blown and oriented film applications. It combines excellent mechanical properties with easy processability, offering an efficient solution for demanding film applications.

Application

Borstar® FB5560 is a versatile solution that supports a wide range of consumer and industrial packaging uses.

Key applications include:

- Consumer packaging: Machine direction-oriented (MDO) packaging, tissue packaging, and food pouches.
- Industrial packaging: Heavy-duty shipping sacks (HDSS) and form-fill-seal (FFS) packaging.

Tested on MDO equipment

- High stiffness
- Best-in-class processability
- Sustainable, supports transition to MonoPE solutions
- Ideal for blending with PCR materials
- Enhanced clarity
- Enables thickness reduction
- Available as Bornewables® or Borcycle® C.

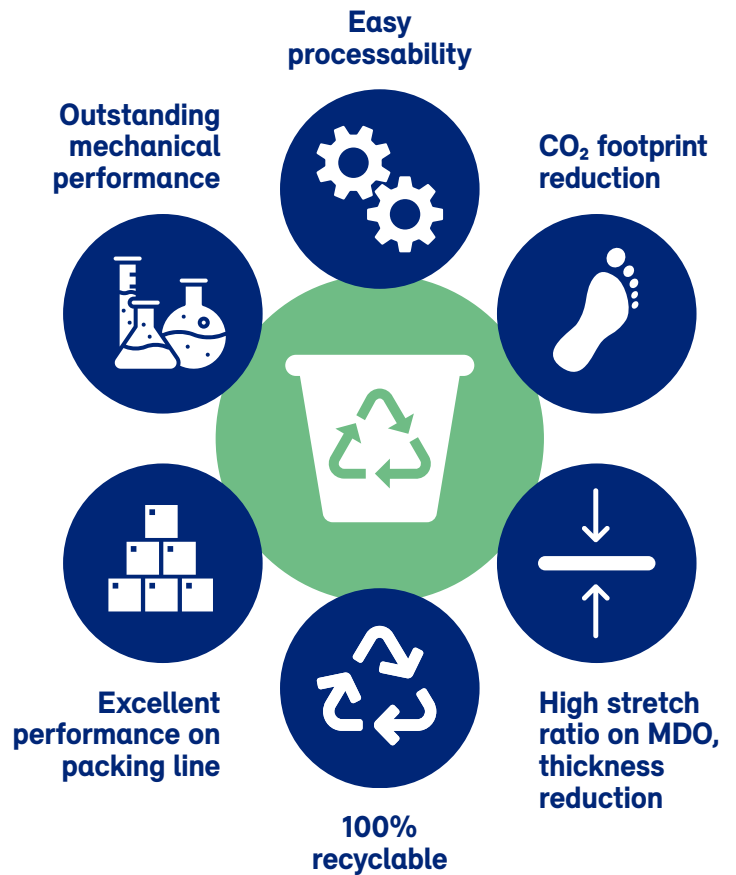
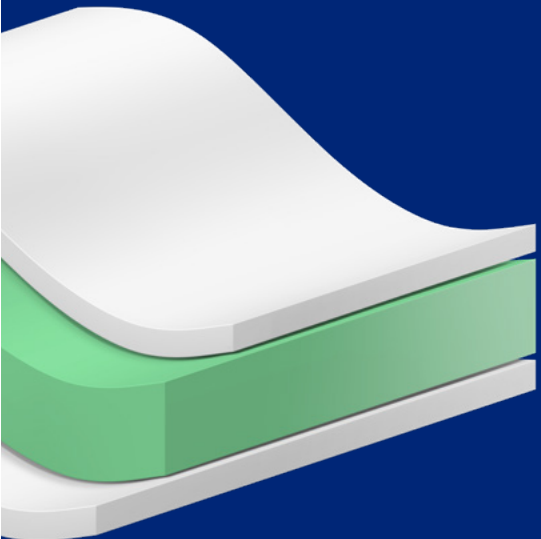


Illustration: Benefits of Borstar® FB5560 © Borealis

Special features

- **Monomaterial solution:** Allows transition from PET/PE to PE/PE laminates according to Design for Recycling guidelines.
- **Material efficiency:** Enables reduction in packaging thickness and weight.
- **Enhanced resistance:** Offers high mechanical and thermal resistance.
- **Stretch performance:** Excels in MDO applications, supporting high stretch ratios.
- **Versatile applications:** Suitable for a wide variety of end uses.
- **Design for Recyclability (DfR):** Completes Borealis' DfR portfolio for blown film solutions.

MDO film solution



Borstar® FB5560

BorShape™ FX1001, FX1002, FX1003

Borstar® FB5560

Borstar® FB5560 in oriented applications

The new Borstar® FB5560 supports the efficient production of MDO blown films, offering excellent processability and compatibility with high stretch ratios. Its advantages include:

- Reliable performance as a lamination substrate and in various industrial applications.
- Excellent thermal resistance, particularly when combined with BorShape™ resins.
- Compatible with high-speed packing lines, with minimal waste or defects.
- Enables lighter packaging, achieving MDO film thicknesses below 25µ.

Property	Unit	Test method	Borstar® FB5560
MFR (@ 190°C/2.16 kg)	g/10min	ISO1133-1	0.8
Density	kg/m3	ISO1183-1	956
Tensile modulus MD-TD*	MPa	ISO527/3	970-1280
Tensile strain at break MD-TD*	%	ISO527/3	645-220

*Measured on 25µ film
Table: Indicative physical properties of Borstar® FB5560
Illustration: Multilayer MDO structure based on Borealis' polyethylene materials

Borealis and Borouge packaging solutions are making everyday life easier

date of issue: February 2025

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).

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