

Proven materials for long-term, reliable and safe transportation of oil, natural gas, water, CO₂ and hydrogen



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Borealis at a Glance

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.

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.



OMV: 75%

Abu Dhabi National Oil Company (ADNOC): 25%

Locations

Head Office

Vienna, Austria

Innovation Centers

Linz (Austria), Porvoo (Finland), Stenungsund (Sweden), Borouge: Abu Dhabi (UAE)

Production sites

Austria, Belgium, Brazil, Finland, Germany, Italy, South Korea, Sweden, The Netherlands, United States

Recycling plants

Austria, Belgium, Bulgaria, Germany

Joint ventures

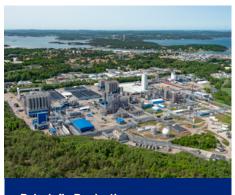
Borouge - with the Abu Dhabi National Oil Company (ADNOC) in Abu Dhabi, UAE Bayport Polymers - with TotalEnergies in Texas, United States



Olefin Production Porvoo, Finland



Linz, Austria



Polyolefin Production Stenungsund, Sweden



Borealis has 6,200 employees

Borealis Business Areas

Building on its proprietary Borstar®, Borlink™ and Borceed™ technologies and more than 50 years of experience in polyolefins, Borealis and Borouge support key industries with a wide range of applications in the areas of consumer products, energy, healthcare, infrastructure, and mobility. Base chemicals complement the portfolio, servicing a wide range of industries in the business-to-business area.

Polyolefins

Polyolefins are a family of thermoplastics that include polyethylene (PE) and polypropylene (PP). The polyolefins manufactured by Borealis form the basis of many plastics products that are an intrinsic part of our daily lives. The areas of application are wide-ranging and diverse.

They are divided into the main segments:

Energy

Borealis provides added-value and sustainable polyolefin compounds for the global energy industry, in submarine and land, power transmission and distribution, networking and communication cable installations, energy storage and capacitors based on Borlink*" technologies.

Infrastructure

Borealis offers advanced and sustainable polyolefin solutions for pipe systems used in various industries: water and gas distribution, waste water and sewage disposal, irrigation, plumbing and heating, and oil and gas.

Mobility

In vehicles, Borealis continues to discover new material solutions which help facilitate lightweight construction and thus play an important role in enhancing energy efficiency. Borealis' leading-edge polyolefin plastic materials are used in a wide range of exterior, interior and under-the-bonnet applications. These include bumpers, body panels, trims, dashboards, door claddings, climate control and cooling systems, air intake manifolds and battery cases.

Consumer Products

Borealis provides advanced and circular polyolefin solutions for flexible and rigid packaging, and for hygiene and filtration applications, based on proprietary Borstar® technology.

Healthcare

Borealis offers advanced polyolefins for medical devices, pharmaceuticals and diagnostic packaging.

Solutions for Polymers

Borealis continually develops performance-enhancing solutions such as polymer modifiers (plastomers and elastomers) for projects with demanding sealing, flexibility, compatibility and processability requirements. Borealis' PP-based foamed products fulfill the varying and sophisticated needs of both converters and consumers.

Circular Economy Solutions

Borealis recognizes Circular Economy (CE) as imperative across all its industry applications and is dedicated to the entire cascade of circular solutions, including reuse and design for recycling. Borealis also offers solutions produced from (advanced) mechanically recycled feedstock (Borcycle M), chemically recycled feedstock (BorcycleTM C) and renewable-based feedstock (Bornewables").

Each segment benefits from the advantages offered by Borealis polyolefins: resource-efficient production methods, assured high performance, sustainability and reliability of end products, and improved cost efficiencies.

Base Chemicals

As the building blocks of the chemical industry, base chemicals are used to manufacture the essential products and applications used by industry and consumers in daily life. Base chemicals are used in diverse sectors, including aviation, mobility, renewable energy, consumer appliances, advanced packaging, healthcare, and many others.

Addressing Global Challenges

Borealis' sustainability ambition is to build a prosperous and sustainable future for all. It is imperative that future generations find living conditions on this planet that enable them to live a healthy, secure and prosperous life. As such, sustainability is an integral part of our business strategy. In providing state-of-the-art sustainable solutions for our customers as part of our We4C strategy we advance our own sustainability efforts and positively impact the world.

We strive to continuously improve and reduce our CO_2 footprint to become a net zero company by 2050 and to develop sustainable and circular products that contribute to sustainable living.

Energy Transition

Energy transition can be the means for combating climate change, accelerating the reduction of carbon emissions and at the same time creating conditions for growth and development.

Through new technological solutions that allow the increasing use of renewable sources in the energy mix and the successful penetration of hydrogen technologies, carbon capture and storage, as well as energy storage, Borealis is ready for the energy shift. The coating solutions provided by Borealis products focus on the main pillars of energy transition which are gas, hydrogen and CCS technologies (carbon capture and storage). We are committed in making a positive contribution to the energy transition and to tackle climate change, through the development of innovative products and the reduction of the carbon footprint of our production activities.

Natural Gas

Natural gas is often considered as the transitional fuel to a clean energy future, producing around half the carbon dioxide (CO₂) and just one tenth of the air pollutants of coal when burnt to generate electricity. Natural gas is an ideal, cost-effective partner to renewable energy sources, such as wind, solar, hydrogen and hydropower, providing a consistent back-up source of power to their variability.

Borealis supplied a wide range of Borcoat™ anti-corrosion protection coating materials for all the global natural gas pipeline mega-projects, including onshore and deep water offshore ones.

Hydrogen

Hydrogen is considered the cleanest fuel of the future. One of the most important challenges, however, is its efficient production through electrolysis from renewable energy sources. In this way it will be able to, gradually, replace natural gas that is considered the fuel that will enable the transition to a zero carbon-emissions economy.

Borealis supplied Borcoat™ anti-corrosion protection coating materials for the first European up to 100% Hydrogen dedicated and certified pipelines.

Carbon Capture & Storage (CCS)

CCS provides a cost-effective means of reducing CO_2 emissions from sources in the industrial and power sector; for several sectors, CCS is the only technology that allows significant reduction on a short timescale, notably process-related emissions. Transport of the CO_2 between sources and storage sites will occur by pipelines or ships. CCS technology is in progress, constantly evolving and will help tackle climate change.

Borealis supplied a wide range of Borcoat™ anti-corrosion protection coating and thermal insulation materials for the first major European CCS projects in the North Sea.

Water

Many of us take for granted the flow of safe and clean water we get when we turn on the tap. Few truly appreciate what goes on behind the scenes to allow us to enjoy reliable and uninterrupted access to potable water.

Borealis Borcoat™ and BorSafe™ materials help ensure life's essentials, and contributed to the success of major water pipeline projects, providing long-term anticorrosion protection.



A reliable partner to supply anti-corrosion coating materials

- Products are known for their quality and performance, having been used in numerous projects across the world for over 25 years
- Provides full product documentation. This includes test reports from external accredited labs, according to common industry requirements, on all Borcoat grades, and product-specific product performance and confirmation statements
- Supports customers with a dedicated, experienced team of commercial and technical experts who can address their specific needs
- Has proven the supply reliability and flexibility to support customers with projects of any size, including 'mega-projects'
- Follows a strict quality approach with its products and follows industry requirements in terms of change management
- The Borealis Value Creation through Innovation strategy sets it apart from other companies in the industry because it concentrates on the entire value chain. Borealis does not just make products, but rather focuses on the entire life cycle of how these products are processed, deployed, used, and ultimately recovered into a second life.

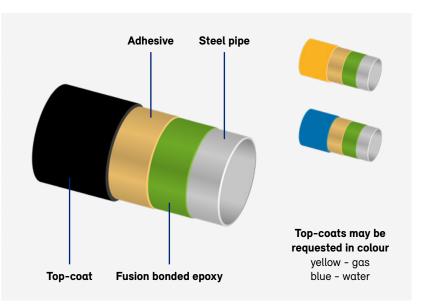


What Borealis Offers

Borealis solutions for the 3-Layer-Polyolefin (3LPO) market: PE and PP based Borcoat™ adhesives, top-coats and rough coats

PE materials to be used in a temperature range of -40°C to +80°C for on- and off-shore pipelines

Grade name	Function					
Borcoat HE3450						
Borcoat HE3453	Ton and					
BorSafe ME3441	Top-coat					
BorSafe ME3444						
Borcoat ME0420	Adhesive					
Borcoat ME0433	Adnesive					
Borcoat HE7405	Rough coat - powder material, providing the coating a rough surface					

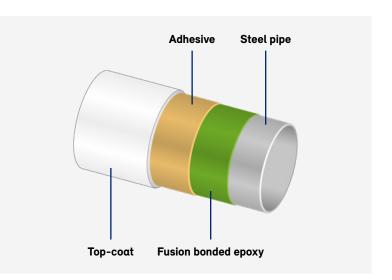




PP materials to be used in a temperature range of -20°C to +110°C for on- and off-shore pipelines

"PP-LT" materials show improved low temperature (impact) properties and are used for 3LPP coatings exposed to low-temperatures

Grade name	Function
Borcoat BB108E-1199	
Borcoat EB133E-1199-LT	Top-coat
Borcoat BB127E	
Borcoat BB127E-PW	Adhesive
Borcoat BB122E-LT	
Borcoat BB108E-1199-PW	Rough coat - powder material, providing the coating a rough surface



Low temperature Borcoat EB133E-1199-LT and Borcoat BB122E-LT PP coating system contributes to more flexibility in logistics, as the coated pipes can be moved, including during the installation phase, at -20°C and stored easily down to -30°C



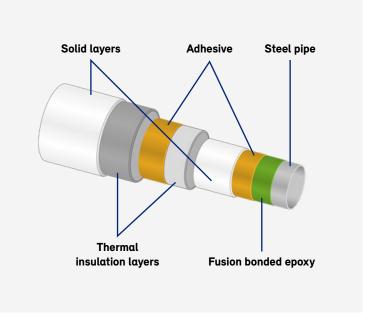
Customer added value

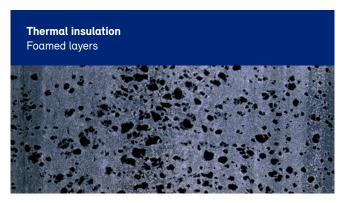
- PE/PP Borcoat™ products with decades of global track record
- 1 stop-shop for PE/PP based adhesives (MAH grafted), top-coats and rough coats
- "PP-LT" products for low design temperature projects
- Product documentation (statements) & test reports (independent/accredited lab), acc. EN ISO 21809-1
- 3 year shelf life for all grades (except black top-coat)
- Experience technical service supporting in commenting to specs, providing statements etc
- Commitment to supply security (regular production, safety stock, global supply experience)
- Material revalidation options

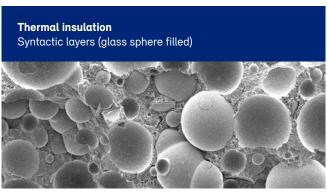
Borealis solutions for the Multi-Layer Polypropylene (MLPP) thermal insulation and field joint coating market

Depending on the water depth such coatings can consist of several layers of PP, among them foamed layers and layers based on syntactic PP (PP filled with hollow glass spheres). Depending on the design of the coatings such coatings may be used up to approxmately 140°C and for water depths of up to 3000m.

Grade name	Function			
BA202E				
Borcoat BB108E-1199	Collidate in collection become			
Borcoat BB700E-7032	Solid or insulation layers			
Borcoat EA165E				
Borcoat BB127E				
Borcoat BB127E-PW	Adhesive			
Borcoat BB122E-LT				
Borcoat BB108E-1199-PW	Rough coat - powder material, providing the coating a rough surface			





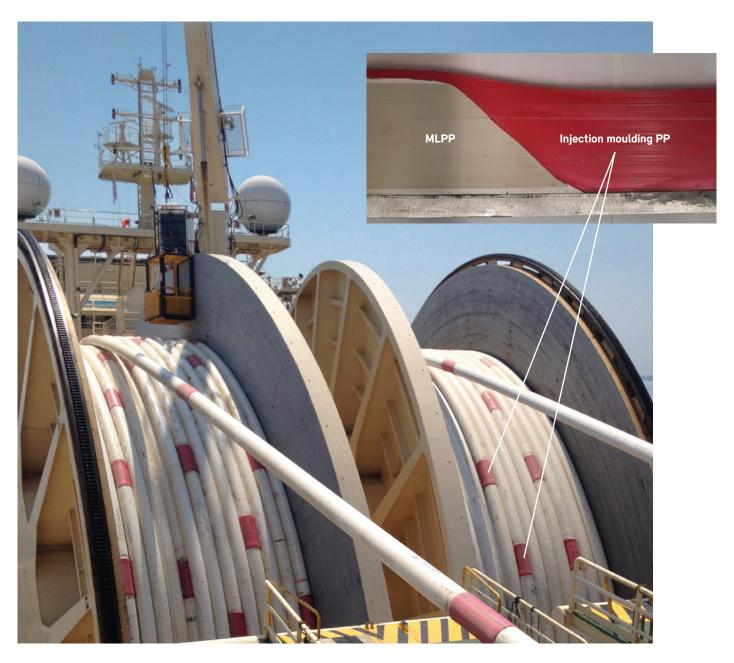


Customer added value

- Globally known and used PP products since decades for wet-thermal insulation coatings
- Product documentation (statements, test reports) according to common industry requirements
- 3 year shelf life for all grades
- Experience technical service supporting in commenting to specs, providing statements etc
- Commitment to supply security (regular production, safety stock, global supply experience)
- Material revalidation options

PP based injection moulded field joints or bends

Grade name	Function	EA165E Fusion bonded epoxy Adhesive
Borcoat EA165E	Field-joint coating	
Borcoat BB127E		
Borcoat BB127E-PW	Adhesive	
Borcoat BB122E-LT		Steel pipe Thermal insulation layers



Borealis solutions for flexible pipes

Possibilities to select from the full range of Borealis PE, PEX, PP and elastomers.

Grade name	Function		Customer added value
HE1878E			 Wide range of PE, PEX, PP, elastomer and recycling grades
HE1878E-C3	Lining or outer sheath of umbilical.		- 0&G specific support on technical and
BorSafe HE3492-LS-H	flexible (RTP/TCP*) and steel pipes		commercial side based on a dedicated, specialized and experienced team
BorSafe HE3493-LS-H	intermediate layers in umbilical		- Borealis commitment to supply security (globally), regular production and safety stock
BorSafe ME3441			una sanot, stock

^{*}RTP=Reinforced Thermoplastic Pipe *TCP=Thermoplastic Composite Pipe

Special features of BorSafe HE3492-LS-H (PE100-RC classified) and HE3493-LS-H (PE100-RC and PE-RT Type 2 classified)

PE100-RC classification

- Toughness and crack resistance, supporting rough handling needed
- PE100 RC extends the expected service lifetime of the Outer sheath due to increased resistance to Slow Crack Growth
- Easy to extrude into thick layers, thanks to the high melt strength and high resistance sag "Low Sag"
- Easy to extrude into tight tolerances, thanks to the high melt strength
- Easy to weld (same procedures applied as for standard PE100/PE100 RC in pressure pipe application)

PE-RT Type 2 classification

- Heat stability
- PE RT type 2 compounds are typically designed for plumbing application, designed for thin extrudate thickness and high extrusion speed. Therefore high MFR, low melt strength (lower molecular weight)



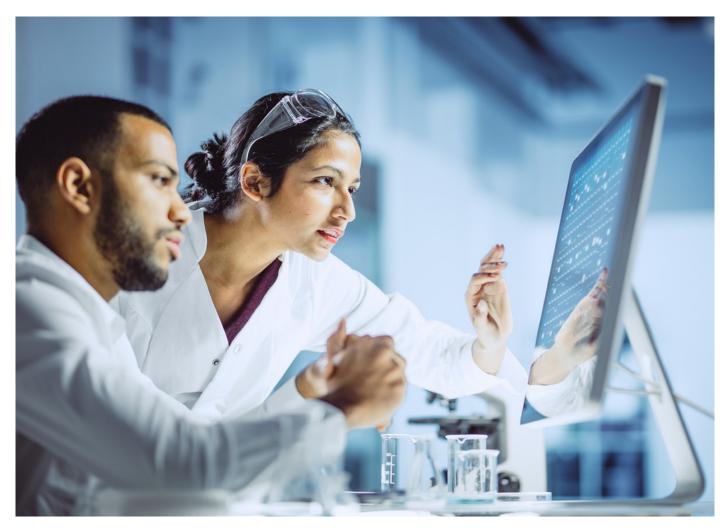
Summary Data Sheet

Grade name	Colour	MFR (190°C/2.16 kg) g/10 min	Density kg/m³	Resin form	Typical applications/key properties
Polyethylene st	eel pipe coating				
Borcoat HE3450	Black	0.5	958	Pellets	Bimodal HDPE top coat, design temp40°C up to +80°C
Borcoat HE3453	Natural	0.5	940	Pellets	UV and thermal stabilized bimodal HDPE top coat for colouring non-black coatings
Borcoat ME0420	Natural	1.2	934	Pellets	Grafted adhesive for HDPE systems
Borcoat ME0433	Natural	4.5	934	Powder	Grafted adhesive for HDPE systems
Borcoat HE7405	Black	8	944	Powder	PE rough coat to better adhere concrete weight coating and for improved safety during handling operation

Grade name	Colour	Designation	MFR (230°C/2.16 kg) g/10 min	Tensile stress at yield MPa	Tensile modulus MPa	Charpy impact notched (+23°C) kJ/m²	Charpy impact notched (-20°C) kJ/m²	Typical applications/key properties	
Polypropylene for coating and thermal insulation of steel pipes									
Borcoat BB108E-1199	White	PP	0.9	26	1,100	25	4	UV and thermal stabilised white topcoat in pellet form	
Borcoat BB108E-1199-PW	White	PP	0.9	26	1,100	25	4	UV and thermal stabilised white powder for rought coat applications	
Borcoat B8700E-7032	Grey	PP	2.1	24	900	30	6	Thermal insulation syntactic layers	
Borcoat EA165E	Natural	PP	0.3	20	900	70	20	Injection moulded subsea field joints, impact resistant top coats	
Borcoat BB127E	Natural	PP	7.5	20	1,000	15	4	Grafted adhesive for PP coating systems, design temperature onshore up to 110°C, offshore up to 140°C, in pellet form	
Borcoat BB127E-PW	Natural	PP	7.5	20	1,000	15	4	Grafted adhesive for PP coating systems, design temperature onshore up to 110°C, offshore up to 140°C, in powder form	
BA202E	Natural	PP	0.3	28	1,200	50	5	Solid or foamed layer in thermal insulation systems	
Borcoat BB133E-1199-LT	White	PP	1.2	22	1,000	60	5	Solid or foamed layer in thermal insulation systems with good low temp. performance (-20°C)	
Borcoat BB122E-LT	Natural	PP	7	18	900	40	6	Grafted adhesive for PP coating systems, especially designed for low temperatures (-20°C), available in pellet form for extrusion and in powder form for spray applications	

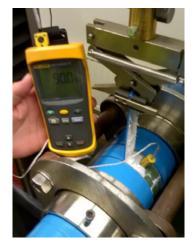
Grade name	Colour	MFR (190°C/2.16 kg) g/10 min	Density kg/m³			Typical applications/key properties
Cross-linkable	poylethylene	(PE-X) for liner	s in flexible pip	es		
HE1878E	Natural	10.5	953	EN ISO15875, DIN16892, ASTM F876	Powder for PE-Xa	Powder PE-Xa solution for liners in flexible pipes
HE1878E-C2	Natural	9.2	953.5	EN ISO15875, DIN16892, ASTM F876, ASTM F2023	Mini pellets for PE-Xa	Minipellet PE-Xa solution for liners in flexible pipes

Grade name	Classification	Туре	Colour	MFR (190°C/5.0 kg) g/10 min	Density kg/m³	Tensile stress at yield MPa	Tensile modulus MPa	Typical applications/key properties
Polyethylene fo	r outer shea	th and lir	ner in flex	cible pipes				
BorSafe HE3492-LS-H	PE100-RC	HDPE	Orange	0.25	952	24	1,000	UV and thermal stabilized orange PE100-RC material in pellet form for outer sheath in flexible pipe
BorSafe HE3493-LS-H	PE100-RC PE-RT Type 2	HDPE	Natural	0.23	949	23	950	UV and thermal stabilized natural PE100-RC and PE-RT Type 2 material in pellet form for liner in flexible pipe
BorSafe ME3441	PE80	MDPE	Yellow	0.8	945	20	800	UV and thermal stabilized yellow MDPE 80 material in pellet form for outer sheath in flexible pipe



Dedicated Lab and Steel Pipe Coating Line

Borealis has its own test laboratory including steel pipe coating pilot line, located in Finland









- Regular QC control of every adhesive batch
- Product development works
- FBE compatibility testing
- Experimental and troubleshooting works with Borealis customers
- Experimental works with pipeline owners and contractors
- Trainings for our customers and own personnel



Case Studies and Track Records

Borealis PE, PP and adhesive systems are widely used in many important projects of oil, gas and water steel pipelines since many years.

Borealis supplied Borcoat anti-corrosion protection coating materials for the first European up to 100% hydrogen dedicated and certified pipelines.

Borealis supplied a wide range of Borcoat anti-corrosion protection coating and thermal insulation materials for the first major European CCS projects in the North Sea.

The Borcoat PE three component system passes the major existing standards and local specifications with superior safety margins, e.g. ISO 21809-1 (Class B), DNVGL-RP-F106, DIN 30670, NFA 49710 and CAN/CSA-Z245.21. TOTAL GS EP COR 220

The Borcoat PP three component system passes the major existing standards and local specifications with superior safety margins, e.g. ISO 21809-1 (Class C), DNVGL-RP-F106, DIN 30678 NFA 49711, TOTAL GS EP COR 221

Specific track records available upon request.

All Borealis manufacturing units are ISO 9001, ISO 14001, ISO 5001, ISCC PLUS certified by a third party. A copy of the certificates are available on request, as well as 24/7 on our website at borealisgroup.com/about-us/commitments/quality/standards-certifications

Selected case studies available for download at borealisgroup.com/industries/infrastructure/steel-pipe-coating



Enabling life's essentials through superior polyethylene pipe materials



Borcoat™ PP multi-layer foam system a success for deepwater project



Borcoat™ polypropylene (PP) coatings for Gorgon field offshore pipes

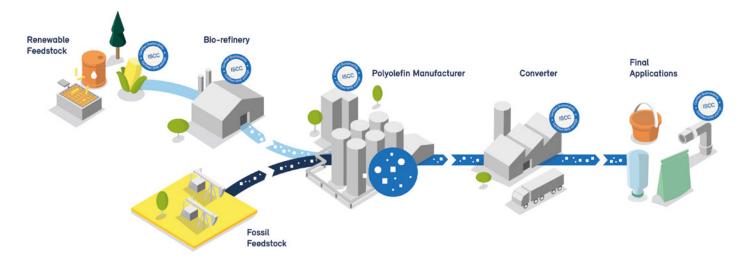


The Dophin Gas Project



Building the Baltic Pipe with Borcoat™

The Bornewables[™] is a new line of circular polyolefins produced with renewable feedstock



September 2020 — Launch of the Bornewables™, our line of circular polyolefins, providing a sustainable solution for demanding applications across various industries, including direct food contact.

We enrich our existing PO product portfolio with a wide range of ISCC PLUS certified polyolefins for our partners seeking to make an immediate or future switch to embrace circularity and achieve their targets of carbon reduction.

The Bornewables are made of 2nd generation renewably-sourced feedstocks derived solely from waste and residue streams, such as:

- vegetable oil production
- oil waste and residues
- the forest industry
- the food industry

With the Bornewables, we deliver on our EverMinds $^{\text{TM}}$ promise to spur the transformation from a linear to a circular economy.



The Borcycle™ C is a solution for closing the loop on plastic waste

High purity, high performance recycled materials

Transformational solutions for chemical recycling that gives polyolefin-based, post-consumer waste another life; a solution creating both virgin-level grade materials and high safety and performance qualities fit for demanding applications.

BorcycleTM C renews plastic back to plastic; creating recycled materials with a level of purity fit for protective, food-safe and other demanding applications.

It's never been a more important time to address the urgent issue of plastic waste and its impact on the planet. At Borealis, we believe that waste is just unused potential; value waiting to be reignited.

Chemically recycled plastic waste

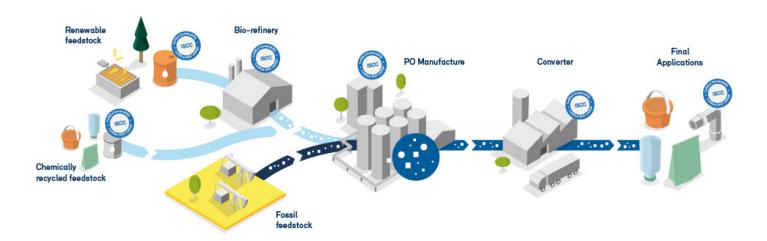
BorcycleTM C is our portfolio of transformational chemical recycling solutions, giving polyolefin-based, post-consumer waste another life. It offers all-round benefits, supercharging the transition to a circular polyolefin industry whilst creating virgin quality plastic products.

Food-safe and high performance

Borcycle C renews plastic back to producing virgin-like grade materials: offering recycled materials with a level of purity fit for food, healthcare and other demanding applications.

Borcycle suite of technologies

Our Borcycle solutions are scalable and ever-advancing, using value chain collaboration and Borealis expertise, experience and innovative strength. Borcycle C is at the heart of Borealis' drive for progress towards a circular future, captured in our EverMinds™ platform and its ambition for Accelerating Action on Circularity



We use the mass balance model to track and trace the amount of fossil-based feedstock which is replaced with chemically recycled feedstock in our monomer and polymer production.

The mass balance chain of custody allows to track the plastic waste feedstock back to the first collection point.

Another advantage of the mass balance model is that we can use our existing, cost-efficient, production assets, and do not need to build a parallel system to allow offering these sustainable solution to the market as of today.

All Borcycle™ C polymers are certified by ISCC Plus - a reliable global leading sustainability certification scheme.





For more information about our steel pipe coating solutions visit borealisgroup.com/industries/infrastructure/steel-pipe-coating



Contact Borealis industry experts borealisgroup.com/contact



Contact Borouge industry experts borouge.com/en/contact-us/Pages/home.aspx

Borealis and Borouge solutions are enabling life's essentials

date of issue: July 2025

The information contained herein is to our knowledge accurate and reliable as of the date of publication, Borealis extends no warranties and makes no representations as to the accuracy or completeness of the information contained herein (in particular for any The information contained nerein is to our knowledge accurate and reliable as of the activation. Borealis serting the data and accludations made by third parties that are not verified by Borealis) and assumes no responsibility regarding the consequences of its use or for any errors. It is the customer's responsibility to impact 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 patient to be inferred. Insofar as products supplied by Borealis are used in conjunction with third-party materials and ensure that Borealis 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 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.

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 customers in over 120 countries and head office in Vienna, Austria, Borealis employs around 6,200 people. In 2024, we denerated a net profit of EUR 566 million, OMV, the sustainable chemicals, fuels and energy company with a focus on circular economy solutions, headquartered in Vienna, Austria, 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 | borealiseverminds.com

Borealis GmbH

Trabrennstr. 6-8, 1020 Vienna, Austria Tel +43 1 22 400 000 borealisaroup.com

Borouge Pte Ltd Sales and Marketing Head Office 1 George Street 18-01, Singapore 049145 borouge.com



