BOROUGE
INTERNATIONAL

Your expert partner for mechanical recycling

Content

Innovative solutions for active environmental protection

Improving our ecological balance

In an effort to continuously improve, we have undertaken a Life Cycle Assessment (LCA) of various grades at our mechanical recycling plants to understand the environmental impacts of our products.

The LCA was performed in accordance with ISO 14040 and 14044 standards and critically reviewed by a third party. The Global Warming Potential, amongst other impact categories, was assessed.

Life Cycle Assessment is a tool to quantify the environmental impacts across a product's life and can be used to identify hot spots for improvement and decision making to avoid shifting burdens.

We are constantly working on further improving our ecological balance and invest heavily in modern technology necessary for this. For example, our waste water is mechanically, chemically and biologically treated in our own water treatment plant, and rainwater from roofs and other surfaces is re-used several times in our production water system.

> We place focus on mechanical recycling but take a wider view on the value chain.

Empowering our customers to play a key role in circularity

Plastic use has increased twenty-fold in the past 50 years due to its excellent properties and benefits, such as functionality, durability and versatility. But since becoming indispensable in appliances, an increasing amount of plastic waste is now generated every year. To make sure these products avoid landfill, we promote the development of a circular economy through three key principles.

By enhancing material effectiveness through reuse, recycling and alternative feedstock, we can ensure the circularity of plastic. This means better environmental and economic outcomes while continuing to harness the many benefits of plastics.

In comparison with conventional production and use of new virgin plastics, we achieve the following environmental and economic benefits each year:

01 Preserving and enhancing natural capital

02 Circulating products, components and materials at their highest utility

03 Creating only minimum waste and pollution

Our mechanical recycling assets

Borouge International mechanical recycling asset footprint

Wildon, Austria

- Production capacity 30,000 tons annually
- Focus on high-quality recycled low-density polyethylene **(rLDPE) Borcycle™ and Recleo™ solutions**

Niedergebra, Germany

- Production capacity 40,000 tons annually
- Modern compounding line for high-end rigid recyclate needs
- Focus on mixed **polyolefin and rigid polypropylene (rPP) Recleo™ solutions**

Elin Pelin, Bulgaria

- Production capacity 20,000 tons annually
- Transformed from rLDPE to rPP in Q4 2025
- Focus on **high end rigid polypropylene (rPP) Borcycle™ and Recleo™ solutions**

Certification

All of our mechanical recycling plants have been certified by the RecyClass Recycling Process Certification program. As an independent, third-party certification, RecyClass verifies the origin of our waste and ensures the traceability of our materials throughout the process. Our customers can rely on every PCR and PIR grade in our portfolio for environmental claims, which can be proven via product certificates, e.g., Blue Angel or Plastica Seconda Vita. Compliance with the Spanish Plastic Tax is also ensured.

RecyClass RECYCLING PROCESS

Mechanical recycling

Recleo™

- Fit-for-purpose standard and enhanced recyclates and compounds
- Sourced from post-consumer and post-industrial feedstock

Borcycle™ M

- Premium recyclates and tailor-made compounds
- Based on post-consumer feedstock

Recleo™

Your reliable partner for mechanical recycling

We collaborate across the entire value chain, building strong feedstock partnerships and engaging in public affairs to help shape effective regulatory frameworks. Our expert teams bring decades of mechanical recycling and polyolefin experience to every project.

Our portfolio offers quality recycled materials designed to support circularity, reduce environmental impact, and meet the evolving needs of modern industries. We offer a comprehensive range of Post Consumer Recyclates (PCR) as well as Post Industrial Recyclates (PIR).

Within our PCR compounds we combine our polyolefine and recycling know-how, tailoring them for applications requiring consistent performance and regulatory compliance.

A portfolio built on quality, reliability, and global reach

- Quality control from feedstock to product level
- Project Development towards Design for Recycling, Eco-Efficiency and Reuse
- Technical service
- Innovation centers supporting development and testing
- Product stewardship and regulatory guidance
- Sustainability expertise: product certification, design for recycling, regulatory compliance, and PCR integration

Borcycle™ M

The premium solution for the highest quality, with a lower carbon footprint

An ever-advancing transformational technology for **mechanical recycling** that gives polyolefin-based, post-consumer waste another life; a solution for lowering carbon footprints whilst raising material quality fit for demanding applications.

Borcycle™ M is our transformational mechanical recycling technology, giving polyolefin-based, post-consumer waste another life

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

- **Most energy efficient process**
  Borcycle™ M is our transformational mechanical recycling technology, supercharging the transition to a circular polyolefin industry by creating highest quality materials in the most energy efficient way.
- **Ever-advancing through collaboration and innovation**
  Borcycle™ M technology is ever-advancing, using value chain collaboration and Borouge International expertise, experience and innovative strength; unlocking the potential of recycled material in ever-more demanding applications.
- **Highest quality solutions**
  Borcycle™ M offers a wide portfolio of consistent high quality, versatile materials, fit for broad needs and demanding applications, contributing to your sustainability goals.

Tailored benefits for your industry

Every industry faces unique challenges when integrating recycled materials, and our broad portfolio combined with our expertise enables us to deliver tailored advantages no matter your sector. Whether you're focused on achieving consistent material quality, meeting regulatory or certification requirements, improving sustainability performance, or ensuring durability in demanding environments, we offer solutions designed to fit your needs.

We also partner closely with you throughout the process, helping to identify the right materials, optimize performance, and support your broader circularity goals. By aligning our capabilities with your ambitions, we ensure a seamless and effective integration of recycled content into your operations.

Innovate sustainably with us

Partnering with us means gaining confidence, efficiency, and measurable sustainability impact. We help you meet your sustainability goals with lower carbon solutions, clear certification support, and the reliability of a trusted global supplier. Our technical expertise ensures optimized performance and smooth processing, while our seamless one stop shop approach simplifies procurement and strengthens commercial synergies.

We work side by side with you to develop tailored, fit for purpose solutions that position your business at the forefront of the growing sustainable market.

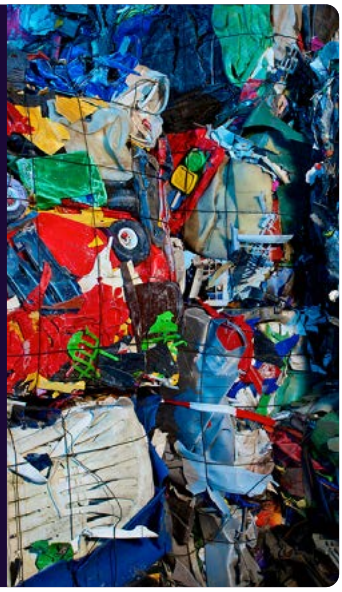
From bales to pellets

Rigid plastics

Input materials:

- PO bulky household waste plastic
- PO municipal / household waste
- Industrial plastic waste
- Feedstock sourced across Europe

Separately collected and pre-sorted polyolefin plastic waste



The feedstock is sorted and separated. Additional washing helps to improve the purity of the final product.

Our plants are equipped with shredders, non-FE and FE metal separators, air separators (wind sifters), grinders, NIR and optical sorters.

Finally the materials are densified, melted, filtered, degassed, homogenized, compounded, and pelletized.

Rigid recyclates

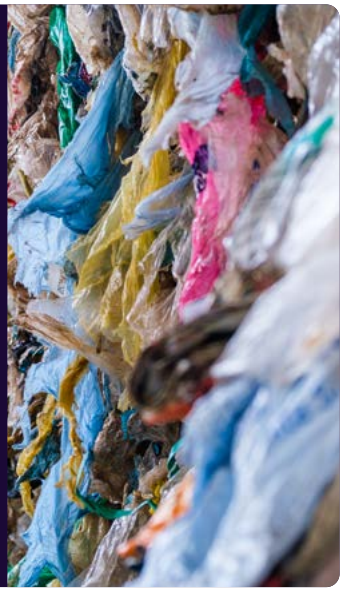
Available in recycled polyolefine-compounds and pure recycled polypropylene quality with different MFRs and colors.

Flexible plastics

Input materials:

- PE film municipal / household waste
- PE film commercial waste
- Industrial plastic waste
- Feedstock sourced across Europe

Separately collected and pre-sorted polyolefin plastic waste



The input materials are pre-sorted, shredded, grinded, separated via air, washed and dried. Afterwards, the materials will be extruded, filtered, degassed and pelletized.

Flexible PE recyclates

Available in various qualities with different MFRs, and levels of translucency.

Products and services

Our mechanically recycled portfolio for flexible solutions

Economical – Sustainable – Competitive

Grades for high end film applications

For high end film applications such as printable pouches, collation shrink and other consumer product packaging applications, we have a number of suitable transparent and low gel rLDPE grades.

For complex printing our offering starts with Recleo™ PE S0003, an enhanced rLDPE grade with low gel content. For customers looking for the very best we offer Borcycle™ PE R0002, a premium rLDPE with very low gel content.

For thin film transparent application our offering starts with Recleo™ PE T1005. For customers looking for the very best we also have our premium offering Borcycle™ PE T1003.

For stretch film as well as other rLLDPE applications, we offer Borcycle™ U0013.

Grades for blown film applications

These grades are typically used in garbage and carrier bags, agricultural and construction film, and other packaging applications. Our offering goes from translucent Recleo™ PE T2006, to colored Recleo™ PE3007 and S3008.

Grades for pipe applications

For non-pressured pipe applications we offer two black rLDPE grades Recleo™ PE S4007 and S4008.

Our product range for film/foil applications

Flexible post-consumer recyclate portfolio

Grade name	MFR (g/10 min) 190°C/2.16 kg	Residual moisture content (%)	Density (g/cm^3)	CO_2 footprint* ($kgCO_2$ eq/kg)	Recycled Content %	Available colors	Product description
Borcycle™ PE R0002	0.35	≤ 0.05	0.925	0.31	100	Transparent / Natural	Very low gel LDPE 100% PCR ideal for high-end film applications
Borcycle™ PE U0013	2	≤ 0.05	0.918	0.31	85	Transparent	Low gel LLDPE 85% PCR ideal for high-end stretch film applications
Borcycle™ PE T1003	0.85	≤ 0.05	0.925	0.31	100	Transparent	Low gel LDPE 100% PCR Ideal for printed high end blown film applications
Recleo™ PE S0003	0.50	≤ 0.05	0.925	0.31	100	Transparent	Low gel LDPE 100% PCR ideal for high-end blown film applications
Recleo™ PE T1005	0.85	≤ 0.05	0.925	0.31	100	Transparent	LDPE 100% PCR for high-end blown film applications
Recleo™ PE T2006	0.85	≤ 0.05	0.925	0.33	100	Translucent	LDPE 100% PCR for blown film applications
Recleo™ PE S3007	0.70	≤ 0.06	0.945	0.45	100	Colored	LDPE 100% PCR for blown film applications
Recleo™ PE S3008	0.70	≤ 0.06	0.945	0.45	100	Colored	Colored rLDPE for blown film applications
Recleo™ PE S4007	0.70	≤ 0.06	0.945	0.51	98	Black	Black rLDPE ideal for blown film and pipe applications
Recleo™ PE S4008	0.70	≤ 0.06	0.945	0.57	96	Black	Black rLDPE ideal for pipe applications

Typical values. Data should not be used for specification work. More rLDPE and rHDPE mixtures are available on demand, for more information please contact our representatives.

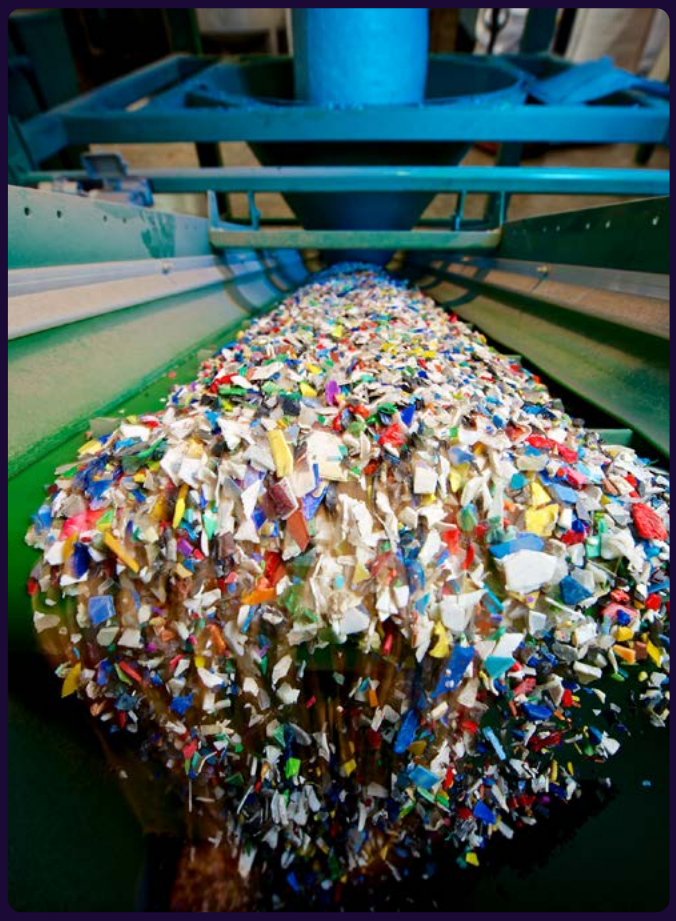
* Partial carbon footprint including biogenic.

Products and services

Our mechanically recycled portfolio for rigid solutions

Economical – Sustainable – Competitive

Compared to the use of new products, every tonne of processed recyclate has approximately 30% lower carbon dioxide (CO_2) emissions vs. comparable virgin polyolefins.



Recleo™: PP F6000, S D8000, S D7000

These are made of household plastic waste, collected via the yellow bag collection system in Germany. Highly selective processing technology involves thorough degassing and melt filtration. This makes them ideal for injection moulded products with static and dynamic loads.

Recleo™: PP G3000

This is made of bulky plastic collected from municipal recycling centres. This is a homogeneous high quality, high purity recyclate andis particularly well suited to the production of sophisticated consumer products. It comes in natural light and standard gray, which allows for a wide variety of colored products and offers a reduced smell.

Example applications using Recleo™ PP

- **Rigid packaging**
  Boxes, crates, edge protectors, plastic pallets
- **Home and garden**
  Pens, painting tools, composers, buckets, lawn grids
- **Construction**
  Pipes, concrete distance spacers, drainage systems

Our product range for rigid applications

Flexible post-consumer recyclate portfolio

Grade name	MFR (g/10 min) 190°C/2.16 kg	Tensile modulus (MPa)	Charpy NIS 23°C (kJ/m²)	CO_2 footprint* ($kgCO_2$ eq/kg)	Minimum recycled content % (post-consumer)**	Available colors	Feedstock for the PCR	Product description
Recleo™ PP 3000	15	1,200	5.5	0.57	> 97.5	Gray, Black, Green, Anthracite	Polypropylene post-consumer household waste	Polypropylene PCR
Recleo™ PP 6000	20/55	1,300	5.5	0.74–0.8	> 95	Light/ Natural, Gray, Black, Anthracite, Green	Polypropylene post-consumer municipal waste sorted in light and dark fractions	Polypropylene PCR for both extrusion and injection moulding
Recleo™ S D7000	10	1,000	6	0.7	> 95	Gray, Black, Green, Anthracite	Polyolefin post-consumer household waste	Polyolefin PCR for injection moulding applications where flexibility matters
Recleo™ S D8000	5	800	7	0.77	> 98			
Recleo™ S D8900	8	800	5.5	Coming soon	> 99			
Recleo™ PP E5043	10	1,150	4.5	Coming soon	> 97.5	Warm Gray, Dark Gray	Polyolefin post-consumer household waste	Polypropylene PCR with reduced odour
Recleo™ PP G5043	20	1,150	4.5	Coming soon	> 97.5	Light Gray, Warm Gray, Dark Gray	Polyolefin post-consumer household waste	Polypropylene PCR with reduced odour
Recleo™ PP J5143	40	1,150	4.5	Coming soon	> 97.5	Light Gray	Polyolefin post-consumer household waste	Polypropylene PCR without odour

** the given value is the minimum PCR content of the Product Family. For detailed values, please refer to the RecyClass Certificate available on our website or contact us directly.

Resin name	MFR 230°C/2.16 kg	Tensile modulus (MPa)	Charpy NIS 23°C (kJ/m²)	Recycled Content %	Available colors	Type of application
Borcycle™ M AG1020MO-74	23	1,350	4.8	99	Dark Gray	Caps with glossy, dark color surface
Borcycle™ M AG1020MO-90	23	1,350	4.8	97	White	Simple screw caps and cap designs
Borcycle™ M AG1020M0-99	23	1,250	4.5	99	Natural	
Borcycle™ M AH1040M0-90	40	1,350	4.8	97	White, Natural	Thin wall packaging, pails
Borcycle™ M AH1040M0-99	40	1,250	3.5	99	Natural	Thin wall packaging, pails

Our product range for post-industrial recyclate (PIR)

Feedstock originates from polyolefine production processes, targeting specific applications. We offer our PIR grades in transparent and black with tailored mfr ranges*.

Post-industrial PP recyclate

Grade name	MFR (g/10 min) 190°C/2.16 kg	Tensile modulus (MPa)	Charpy NIS 23°C (kJ/m²)	Density (g/cm³)	CO_2 footprint* ($kgCO_2$ eq/kg)	Available colors	Product description
Recleo™ PP D9000-99	10	1,500	3.5	0.91	Coming soon	Natural / Translucent	Natural / Translucent PIR available in three melt flow rates
Recleo™ PP G9000-99	20						
Recleo™ PP J9000-99	40						
Recleo™ PP J9000-98	40	1,500	3	0.9	Coming soon	Dark Translucent	Dark Translucent PIR
Recleo™ PP D9000-96	10	1,600	7	0.97	0.74	Black	Black PIR available in two melt flow rates
Recleo™ PP J9000-96	40		4		0.57		

Example applications using PIR

With PIR many virgin polyolefin applications can be realized. The natural / translucent products offer excellent printability, while the black material comes from well stabilized feedstock.

- **Flexible packaging**
  Films, collation shrink films, carrier bags
- **Rigid packaging**
  Boxes, crates, edge protectors, plastic pallets
- **Home and garden**
  Pens, painting tools, composers, buckets, lawn grids
- **Construction**
  Pipes, concrete distance spacers, drainage systems

Typical values. Data should not be used for specification work. More PIR PE available on spot, for more information please contact our representatives.

* Our PIR definitions require at least an extrusion step in the upcycling processes.

We are focusing on quality

High level of reliable, consistent quality

Buyers of secondary raw materials rightly expect an especially high level of reliable, consistent quality. We do everything to meet this expectation, every single day.

- In-house laboratory for ongoing quality assurance throughout the entire production process - Production and delivery of homogeneous 24 ton batches
- Quality for recyclates is certified with ISO 9001, ISO 14001 (Wildon, Austria) and ISO 50001 (Niedergebra, Germany)
- Certified by RecyClass
- Our Wildon location received the International Sustainability and Carbon Certification (ISCC PLUS)

Whether during materials sourcing, materials receiving and post-sorting, after extrusion or before loading, our employees are aware of their responsibility. They work expertly and conscientiously to make their contribution to a perfect, environmentally sustainable recycling result.

> We do everything to meet this expectation, every single day.

Well advised by the experts

Creating and implementing expert solutions

> We see ourselves as a service provider, creating and implementing expert solutions.

The outstanding quality of our recyclates is the result of blending experience, comprehensive specialist knowledge, top equipment, effective monitoring and our determination to provide our customers with a perfect product. Seamless quality assurance through our entire process chain ensures consistently high recyclate quality.

But before we do anything else, we talk to our customers. Our specialists work with them to define exactly what requirements the recyclate must meet, and offer individual suggestions for the best way to achieve this. We are happy to advise customers on the many opportunities for replacing expensive primary raw materials in production processes with our high quality recyclates. We see ourselves as a service provider, creating and implementing expert solutions.

Because thinking circular today will provide us, our partners and society with a better tomorrow

For more information
visit borougeinternational.com

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About Borouge International

Borouge Group International AG (Borouge International) is a global leader in polyolefins formed in 2026 through the combination of Borouge Plc, Borealis and NOVA Chemicals. Backed by long-term shareholders XRG, the international investment arm of ADNOC, and OMV, Borouge International brings together world-class assets, advantaged feedstock access and proprietary technology to deliver reliable high-performance polyolefin solutions across consumer products, infrastructure, energy, mobility and advanced products.

Borouge International combines a differentiated asset base, global reach and deep technical expertise to serve customers across key growth markets. The company is headquartered in Austria, with a regional headquarters in Abu Dhabi and corporate hubs in North America and Asia Pacific.

Learn more about the company: **borougeinternational.com.**

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