

Masterbatch for recyclates & design for recyclability





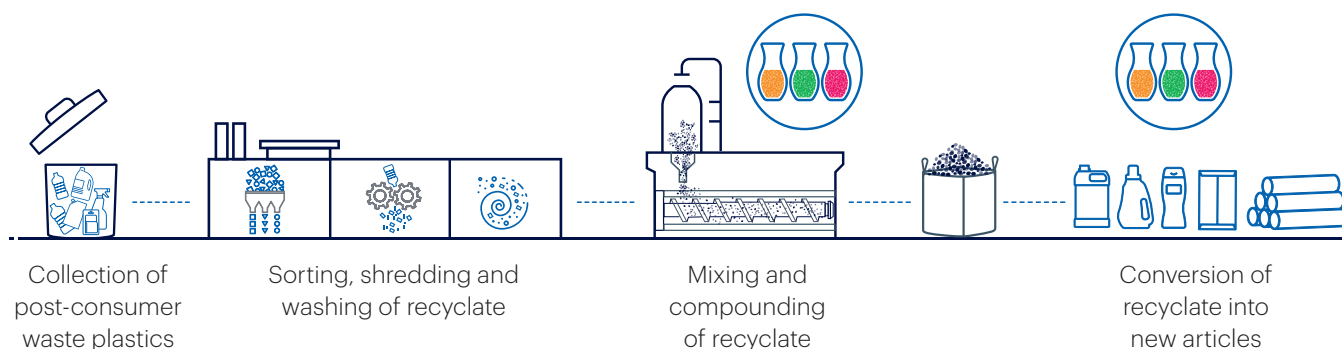
At LYB, our large integrated asset footprint allows us to serve global customers and markets. As many of our materials go into products that people use every day, at LYB we take our responsibility seriously. We have the potential — and responsibility — to use this scale and reach to make a positive impact. We are working to make meaningful progress to address some of the world's most pressing challenges.

A circular economy model is important as it is a closed system that promotes reuse, encourages value extraction of recoverable material and avoids sending material to landfill. Product design for recycling technologies encourages the conversion of more material into recyclates and maximizes resource efficiency.

With our masterbatch and additives portfolio and technical expertise we offer solutions to support the challenges of processing post- and pre-consumer recyclate during the mechanical recycling process and enhance the quality and opportunities for re-use by converters of plastic materials in a multitude of applications.

Enhancing the quality of recycled polyolefins

With growing demand for mechanical recycled polyolefins and the requirement for higher recycled material content in packaging applications, recyclers face several challenges to provide higher quality and easier processability of recycled material for plastics converters.



Challenges faced by recyclers and converters include:

- Thermal degradation from multiple extrusion and compounding, leading to loss of mechanical performance and rheological issues.
- Aesthetic impact related to gel formation, yellowing and increased odor in recycled polymers.
- High moisture/volatiles from plastic washing and contamination from mixed polymer recyclate, causing processing problems and reduced mechanical performance.

LYB is offering sustainability focused masterbatches to address challenges of brand owners and converters across the packaging industry. At LYB, masterbatch for recyclates are offered to improve processing and quality. With our ability to design for recyclability we help teams improve the downstream recycling process and achieve their sustainability goals.

Masterbatch for recyclates

Optical brighteners

Absorbs UV light and re-emits blue, reducing yellowing and improving whiteness and brightness in transparent or white articles with recyclates.

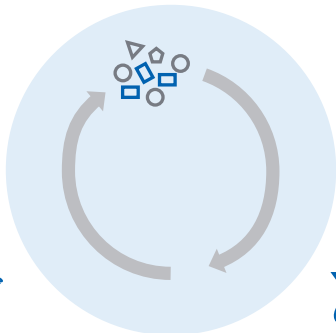


Antioxidants

Antioxidant to protect the polymer from thermal degradation. Reduction of gels, less yellowing and improved control of melt flow index.

Moisture absorbers

Absorbs moisture and allows for higher recyclate content and improved processing with high moisture content recycled polymer.



Processing aids

Improves extrusion, optimizes productivity, reduces gel formation and improves surface quality during polymer processing with recycled polymer.

Odor adsorber

Absorbs or neutralizes odor from volatile organic compounds to reduce the odor of recycled polymer.

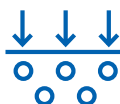


Antacids

Acid neutralizer that deactivates acidic substances that may be present in recyclates.

Slip regulators

Reduce migration of slip additives to improve control of coefficient of friction.



A global network – close to you

By choosing LYB, our customers benefit from short transportation distances and quick deliveries. Currently, we are operating 14 service-orientated masterbatch centers worldwide. Each of them makes an important contribution to our dedication to be a pioneering solution provider.

● Masterbatch sites



About us

We are LyondellBasell (LYB) – a leader in the global chemical industry creating solutions for everyday sustainable living. Through advanced technology and focused investments, we are enabling a circular and low carbon economy. Across all we do, we aim to unlock value for our customers, investors and society. As one of the world’s largest producers of polymers and a leader in polyolefin technologies, we develop, manufacture and market high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. For more information, please visit www.lyb.com or follow [@LyondellBasell](https://www.linkedin.com/company/lyondellbasell) on LinkedIn.

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