



# Advancing an integrated and sustainable portfolio worldwide

LyondellBasell is a global company that advances tangible solutions to its customers every day. The company's dedicated workforce of more than 19,000 employees in 55 countries safely delivers a diverse portfolio of chemicals, polymers and fuels.

“Our global footprint and operational flexibility gives LyondellBasell a structural advantage and creates opportunities to leverage our technologies to meet customer needs, while also expanding in the world's fastest-growing markets,” said LyondellBasell CEO Bob Patel.

“Through a combination of strategic investments, purpose-driven growth, and determined cost management, our company is well-positioned to thrive in all environments.”

The company has expanded recently in many areas: acquiring A. Schulman in 2018 and expanding LyondellBasell's position in the advanced polymers markets; creating a joint venture in Europe to offer polymers based on recycled materials; and building world class facilities in the US, such as the propylene oxide (PO) and tertiary butyl alcohol (TBA) plant in Channelview, Texas and the *Hyperzone* polyethylene (PE) plant in La Porte, Texas.

### Improving the offering

Innovation, in combination with our global employee and asset base, allows LyondellBasell to provide the best-fit products to meet application needs. For example, the company's proprietary *Hyperzone* PE product solutions will be commercially available this year.

“LyondellBasell's *Hyperzone* PE technology enables packaging for everyday consumer and industrial products, which will be produced with less resin,” said Ken Lane, Executive Vice President Global Olefins and Polyolefins. “At the same time, our

customers won't have to sacrifice plant efficiency, product performance, durability or strength.”

### Expanding the company offering

LyondellBasell has been known as a leader in polypropylene compounds supporting the global automotive market. Now the company's Advanced Polymer Solutions (APS) business offers a more diverse market and product offering, strong customer relationships and a visible presence in other areas.

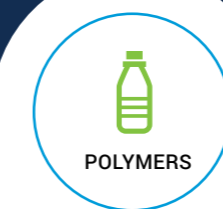
“By adding A. Schulman, we are able to offer new product lines like colors, compounds, engineered composites, masterbatches and powders as well as expanding in our automotive and construction sector,” said Jim Guilfoyle, Executive Vice President Advanced Polymer Solutions and Global Supply Chain. “We strive to work collaboratively with our customers to meet their needs. Whether the application involves standard or customized products, LyondellBasell aims to deliver the best solution with respect to value and performance.”

## A NEWER INTEGRATED PORTFOLIO

LyondellBasell develops materials, products and solutions in five key areas:



LyondellBasell is an industry leader in producing basic chemicals including ethylene, propylene, propylene oxide (PO), ethylene oxide, tertiary butyl alcohol (TBA), methanol, acetic acid and their derivatives.



LyondellBasell manufactures materials used in household goods, adhesives and cleaners, personal care products, automobile parts, packaging, piping, consumer appliances and construction materials.



LyondellBasell produces materials used to provide customers with a customizable range of solutions across multiple product lines including automotive parts, electronics, consumer appliances and construction materials.



LyondellBasell operates one of the largest refineries in the U.S. and produces gasoline, fuel components, low-sulfur diesel, jet fuel and lubricants.



LyondellBasell is the leading licensor of state-of-the-art proprietary manufacturing and process technologies used by companies around the world.

These five key areas support the industry to develop more efficient and effective solutions and applications:



**Food safety and access**  
Packaging and films improve freshness, portability and extend shelf-life.



**Cleaner air and fuel efficiency**  
Stronger, lighter plastics and oxyfuels support increased fuel efficiency and cleaner air.



**Clean water**  
Stronger, longer-lasting pipes used in municipal water systems and key elements for water filtration systems.



**Quality healthcare**  
Improved medical supplies such as synthetic latex gloves, IV bags, hand sanitizers, biohazard bags and pill coatings.



**Agricultural efficiency**  
Lighter machinery, crop protection and soil conditioning.



**Sustainable and modern living**  
Materials that form components used in solar panels, wind turbines, leak- and shatter-proof containers.

## WHAT'S NEW AND DIFFERENT IN THE PORTFOLIO

LyondellBasell is actively working to advance the **circular economy** in these key areas:

### RECYCLED POLYMERS



**Quality Circular Polymer (QCP)**, a joint venture between LyondellBasell and SUEZ, delivers a 100 percent mechanically recycled polymer offering. QCP uses presorted polyethylene and polypropylene waste and turns it into high-quality polymers. These polymers are used in consumer products like shampoo bottles, strollers and even a new eco luggage collection from Samsonite.

### BIO-BASED POLYMERS



LyondellBasell is offering a new range of bio-based polymers called **Circulen** made from renewable raw materials such as cooking and vegetable oil waste. With the same high-quality properties as virgin plastics require, as well as regulatory approvals, it's a perfect solution for sustainable food packaging, films, toys and cosmetics.

### MOLECULAR RECYCLING



LyondellBasell is further developing its proprietary **MoReTec** technology, which has the potential to take mixed plastics waste down to the molecular level to become a feedstock in creating new polymers. The company is building a pilot plant at its research center in Ferrara, Italy with the aim of optimizing the technology towards commercial scale.