



## Creating Parts with unparalleled lightness using LYB foaming solutions

When material efficiency meets sustainability demands, innovative solutions are essential to tackle design challenges. LYB foaming solutions, like the *Polybatch* Blowing Agents (BA) series, are engineered to balance performance and quality while contributing to sustainability goals through weight savings. By collaborating closely with brand owners, the *Polybatch* BA series can reduce the amount of plastic used by up to 30% while maintaining the mechanical integrity required for your applications.

### Magic behind the foaming solutions: the sandwich structure

Utilizing sandwich structures with a foam core made from expanded material offers a compelling opportunity for lightweight materials.

Our *Polybatch* BA solutions are preferred when creating these structures while maintaining excellent properties. Beyond lightweight features, this material provides high strength-to-weight and stiffness-to-weight ratios, effective energy absorption, and comfort due to their flexibility or softness, making them ideal for applications where performance and sustainability are crucial.

Polymer foam with open cell structures can be tailored for flexibility and breathability.

Closed cell structures prevent cell wall rupture and ensure homogeneous cell distribution, delivering improved insulation and water resistance.

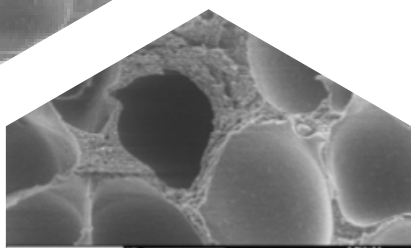
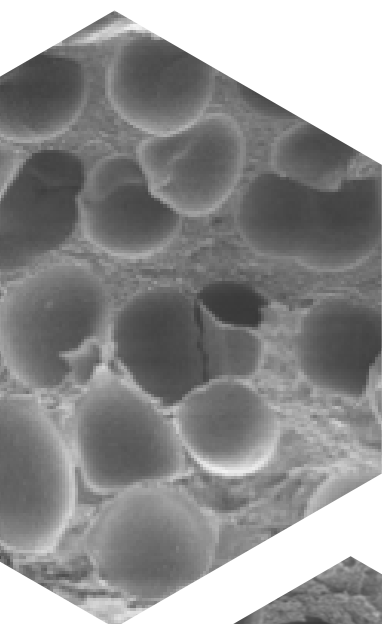
### Uncover the offerings of LYB *Polybatch* BA Series

These masterbatches can be incorporated into a wide range of natural and recyclable materials. Each variant showcases unique product characteristics, offering flexibility for various base materials that require different operating temperatures.

What can you benefit from our solutions:

- Improved dimensional stability: achieve optimal appearance while maintaining shape and size under varying conditions.
- Cost and energy efficiency: reduce manufacturing costs and energy consumption.
- Reduced cycle time: replacement of holding pressure/time by foaming pressure.
- Easy integration: a drop-in solution compatible with existing injection molding or thermoforming processes.

Image: Polymer foam with closed cell structure





### Markets and application examples:

- Consumer and industrial goods, such as pallets and crates
- Transportation, such as car bumpers
- Rigid packaging, such as caps and closures
- Decorative and protective packaging, such as ribbon and foaming film

Take the next step in materials innovation. The technical experts at LYB are ready to help you on your next application design by elevating performance while keeping sustainability top of mind. Contact a LYB representative for more information.



## 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](http://www.lyb.com) or follow [@LyondellBasell](https://www.linkedin.com/company/lyondellbasell) on LinkedIn.

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