

SULZER

Growing the material of the future

Changing the landscape for sustainable polymers can start with sugar-rich crops such as sugarcane.
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Driving innovation and sustainability with agriculture

By growing sugar-rich crops, you are laying the groundwork for sustainable polylactic acid (PLA) biopolymer production. Sulzer Chemtech is here to help sugarcane growers and sugar manufacturers like you to shape the future of the plastic and agricultural industries. Better still, you can benefit from new revenue streams in a fast-growing marketplace.

Sulzer Chemtech can support you by delivering state-of-the-art, fully integrated processing technologies for the conversion of sugar into PLA bioplastics to create a more sustainable, circular economy. Get ready for the future of agriculture, sugar and plastic manufacturing with us.

What is PLA?

Poly(lactic acid), also known as polylactide and abbreviated as PLA, is bio-based plastic that can be obtained from a wide range of sugar-rich crops, such as sugarcane and sugar beet. Therefore, it doesn't require fossil-based resources as feedstock. Also, unlike traditional plastics, the material is biodegradable, compostable and recyclable, enabling producers and users to meet future-oriented circular strategies.



PLA product features

PLA is a highly versatile, cost-effective and eco-friendly material that can be used in a wide variety of applications.

PLA is a thermoplastic polyester derived from fermented biomass obtained from different plant-based resources. Its thermal and mechanical properties, such as stiffness and strength are comparable to many conventional petroleum-based plastics. Therefore, PLA offers a valuable eco-friendly alternative to many fossil polymers, such as polypropylene (PP), polyethylene (PE) and polystyrene (PS) and polyethylene terephthalate (PET).

PLA is also highly biocompatible, making it suitable for highly sensitive applications. In particular, it is ideal for the manufacturing of packaging for food and beverage products as well as biomedical devices and implants for the most specialized grades.

One of the key features of PLA is its ability to be composted and biodegraded, besides being fully recyclable. In addition, it is possible to control the level of biodegradability/ compostability during its processing to provide extended shelf life or more rapid decomposition, depending on the specific application requirements.



Why would you produce PLA?

The market demand for bioplastics, and particularly PLA, is skyrocketing, as it is expected to at least quadruple its size by 2030. This could provide a financial boost for sugar manufacturers.

Many of the world's largest consumer brands have already started to use PLA biomaterials in the packaging of their products. Therefore, there is a large, solid and reliable customer base that agricultural businesses can serve with their new materials from plant sugars.

To enter this new sector, enterprises can also rely on proven processing technologies, on one side, and new funding towards the development and manufacturing of more eco-friendly plastics to enable circularity. This means that companies can increase their profits immediately as they take the first steps in their PLA journey.

Finally, by selecting well-proven and accepted processing technologies and solutions, players in the agricultural industry can benefit from a quick return on investment. This, in turn, can help them continue to grow in the bioplastic sector, promptly maximizing the opportunities and market share.

How can you succeed in the PLA marketplace?

If you want to deliver PLA or any of its intermediates, it is important to ensure you can produce high-quality products at highly competitive prices. To achieve this, access to low price feedstocks but also state-of-the-art production technologies and equipment are a must. Thanks to our long track record as industry leader in bioplastic production, we, at Sulzer Chemtech can offer the right technology to drive your success.

Sulzer Chemtech is a technology leader in chemical separation and polymer production for a wide range of applications, with over 40 years of experience in the sector and over 188 years in the industry. When it comes to bioplastics, we have been delivering world-scale, innovative, fully integrated solutions for the production of PLA and its intermediates for many years. Ultimately, we can help you in every step of the way along your bioplastic journey.

Our equipment is installed in most – if not all, the recent – active facilities globally producing PLA or its intermediates. Our contribution in the field of sustainable plastic production has been pioneering and helped the entire sector get to where it is now. In effect, we have always been very pragmatic in our approach, working hard to develop solutions that minimize processing and operating costs for our customers. In this way, we have been helping them deliver end products with highly competitive prices.

The Chemtech division is the global market leader in innovative mass transfer, static mixing and polymer solutions for petrochemicals, refining and LNG.

Chemtech is also leading the way in ecological solutions such as biopolymers as well as textile and plastic recycling, contributing to a circular economy. Our product offering ranges from technology licensing to process components all the way to complete separation process plants. Customer support ranges from engineering and field services to tray and packing installation, tower maintenance, welding and plant turnaround projects – ensuring minimal downtime.

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