

PURAC

Foundation

- 1930

Turnover

- 400 million € (2010)

Employees

- 1,100

Branches

- Leading company in Lactic Acid based bioplastics and the worldwide market leader in Lactic Acid, Lactic Acid derivatives and Lactides

Key materials

- Beet sugar
- Cane sugar
- Tapioca starch
- Corn starch

Key bio-based products

- PURALACT L[®] and PURALACTD[®] - L-Lactide and D-Lactide monomers for the bioplastics industry
- L-Lactic Acid
- D-Lactic Acid



Company

Purac is a leading company in Lactic Acid based bioplastics and the worldwide market leader in Lactic Acid, Lactic Acid derivatives and Lactides. Purac has 80 years of experience in the development, manufacturing and marketing of these products. Purac operates production plants in the USA, the Netherlands, Spain, Brazil and Thailand and markets its products worldwide.

Products

L-Lactide and D-Lactide monomers for PLA: PURALACT L[®] and PURALACTD[®] are Purac's monomers for the bioplastics industry. Lactides, are dimers of Lactic Acid and so called building blocks for polymers and the production of other chemicals. There are two types of Lactides available: D-Lactide and L-Lactide. Purac's Lactides are characterized by its high stereo optical purity which is a great technological and economic advantage during further processing into lactic acid based bioplastics.

The earliest and best know use of lactic acid as a building block is the use as a monomer for the production of PLA. However, Purac has also performed extensive research on other uses of Lactic Acid and its derivatives, such as in thermoset resins.



Heat-resistant PLA: Combinations of L-Lactide and D-Lactide can be used as a solution to create PLA co-polymers or homo-polymers with a range of features. The availability of pure D-Lactide also offers the possibility for further development of second generation PLA which is based on stereo-complex technology. This technology offers the unique possibility to increase the heat-stability of PLA from 70 up to 230 degrees Celsius. D-Lactide can be used to develop a range of heat-resistant PLA products for plastics, films, fibers and foam applications. L-Lactide and D-Lactide, together with an associated polymerization technology, enable our partners to produce a wide range of PLA products in an economic way.



Link to Agrobiobase



Industrial production of Lactide monomers for PLA: At the end of 2011 Purac finalized the construction of the new Lactide plant in Thailand. The investment was driven by Purac's commitment to play a leading role in the market for Poly Lactic Acid. The capacity of this new plant is 75,000 tons of lactide per year. The plant is designed to produce both L-Lactides and D-Lactides, made out of L- or D-Lactic Acid sourced from existing Purac plants.

Innovating in sustainability: To keep on innovating is our passion. New products, new processes, new applications, new markets, improved product quality and production efficiency have always been important reasons for our continuous innovation efforts. Now, sustainability and a reduced carbon footprint have joined this list and become increasingly important drivers for Purac's innovation programs. Key topics in the sustainability program are: alternative feedstock materials, minimizing the use of auxiliary chemicals, reduction of the energy use, increased use of green energy and replenishment of nutrients into agricultural soil.

Shaping the future
of biobased plastics



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