



# Plant the future with PLA

A 100% biobased plastic

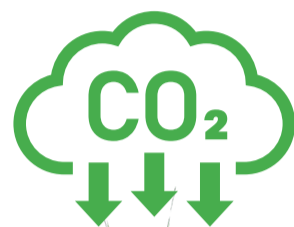


Shifting to **biobased materials** is efficient on resources and reduces environmental impact.

PLA is highly efficient in terms of land use, crop consumption, and lowering carbon footprints when compared to fossil-based plastic.

Read on to learn the about the PLA production pipeline and its benefits.

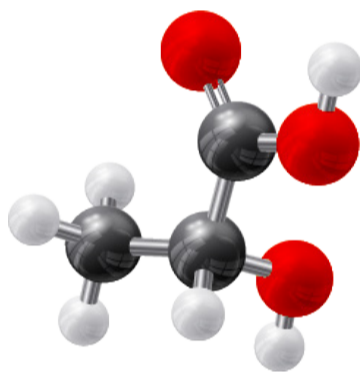
## PLA bioplastic resin is sourced from plants like sugar cane



1.75 sq m<sup>2</sup> of sugar cane crop captures 1.83 kg of CO<sub>2</sub>



## Sugarcane crop is processed in a sugarmill into raw sugar

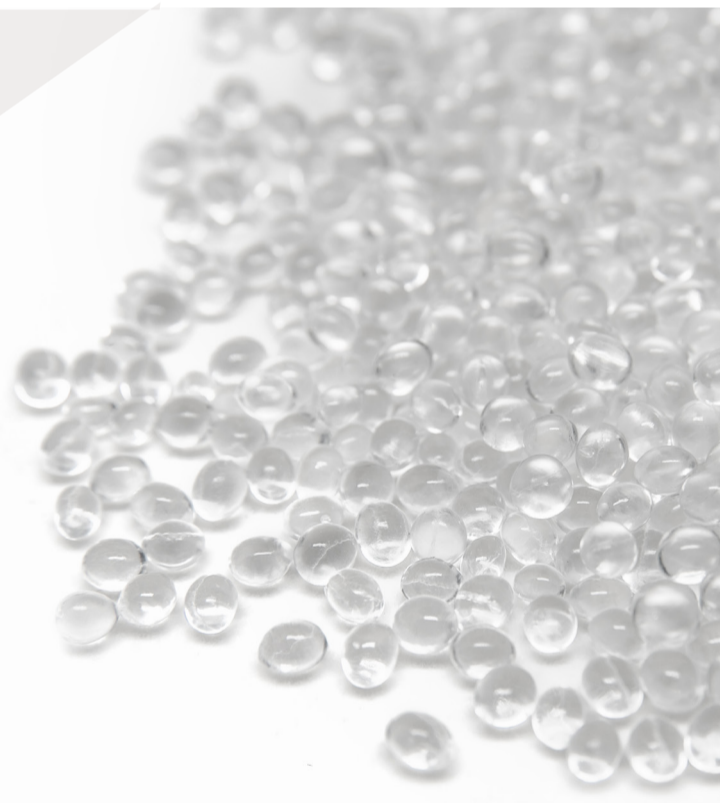


Raw sugar is transformed into lactic acid using a natural fermentation process

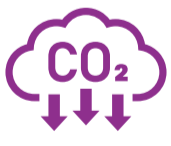
## Lactic acid goes through a polymerization process which converts it into PLA resin

The carbon footprint of **1kg** of PLA resin is **0.5 kg CO<sub>2</sub>\***

\* including atmospheric carbon capture



PLA carbon footprint is on average, **75% lower** than fossil-based plastic resins



1.83 kg CO<sub>2</sub>



1.75 m<sup>2</sup> Land



1.6 kg Raw sugar



1 kg PLA

## Biobased PLA resin is used for a broad range of applications

**Luminy® PLA is certified** 100% biobased (EN16785) and USDA Biopreferred



Go to [totalenergies-corbion.com](https://totalenergies-corbion.com) to get in touch with the team and discover how your manufacturing processes can adopt biobased PLA bioplastic product solutions.