



thinkstep
a sphera company

Introducing the New Easy-To-Use (Bio)plastic LCA Tool

Plastics market

Plastics have advantages over other materials, such as being lightweight and having superior forming and processing properties. Nowadays they are widely used in applications such as packaging, transportation, mobility, housing and infrastructure. Since their introduction in the 50s and 60s, world production of plastics has grown to roughly 335 million tons. Today bio-based materials are also available for all major applications and processing steps and offer an alternative to fossil-based plastic products.

Challenge

In the recent years, the sustainability-related plastics issues, such as sourcing from non-renewable resources and especially issues related to the End-of-life (recycling, reuse, littering, biodegradability) are receiving greater attention. The plastics industry is challenged to provide credible solutions for these problems. To achieve sustainable change in the plastics industry, accurate information in the form of standardized and credible LCA results needs to be made available in a transparent way to as broad an audience as possible, including non-LCA experts.

thinkstep solution

thinkstep, with support of the Institute for Bioplastics and Biocomposites (IfBB, Hannover), has developed an easy-to-use LCA tool specifically for the assessment of (bio)plastic products. The tool is based on thinkstep's award-winning GaBi Envision Web platform, which allows access—through a standard web browser—to high-quality LCA models in the GaBi database.

The (Bio)plastic LCA Tool covers the complete life cycle of (bio)plastic products and allows for a choice of different feedstocks, materials (e.g., PP, PE, PLA, PET, starch blends), standard and customized compounding and converting steps, transportation along the supply chain and end-of-life options (incineration, land-fill, recycling, composting, etc.). The tool allows for the comparison of different product scenarios and comparisons between petrochemical-based and bio-based plastics. The results are calculated for several environmental impact categories, such as the carbon footprint, and are displayed immediately in a customized PDF report.

Making (Bio)plastic More Sustainable with LCA



IfBB

Institute for Bioplastics
and Biocomposites

The new (Bio)plastic LCA-Tool

thinkstep provides the (Bio)Plastic LCA Tool in a standardized version, with a choice of 3 (bio)plastic materials, 3 additives and 3 standard converting processes. The report will be customized to include the company logo and a picture of the (bio)plastic product. Furthermore, a description of the LCA models and data, the environmental impact categories and recommendations for interpretation and communication of the LCA results are included in the report.

Upon request, additional customization can include, for example, unusual feedstocks, new (bio)plastic materials or specific compounding or converting processes.

→ **Want to know more?** Watch our webinar about the (Bio)plastic LCA-Tool: [thinkstep.com/bioplastics-webinar](https://www.thinkstep.com/bioplastics-webinar)

About thinkstep

thinkstep supports companies and organizations on their path to sustainable success: **From product development to materials management, supply chain and sustainable enterprise**, our consultants and thinkstep's wide-ranging software products deliver sustainable success for the future.

Our industry experience:

Automotive & Mobility, Building & Construction, Consumer Goods, Energy & Chemicals, Metals, Mining & Manufacturing, Services & Public Sector



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We enable organizations to succeed sustainably.

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