



Bioplastics market

Bioplastic materials are today available for all major applications and processing steps and offer a real alternative to fossil-based plastic products. For a successful market introduction of bio-plastics products, communication of its environmental performance is critically important. Sustainability assessments such as Life-Cycle Assessment (LCA) offer a scientifically sound basis for company-internal decision making as well as communication towards customers and consumers.

Challenge

The assessment of the environmental performance of a product using LCA can be a time and resource demanding activity and requiring access to data as well as specific LCA competences. Especially for small and medium-sized enterprises (SMEs) this represents often a too large hurdle.

A solution is needed to enable also SMEs to calculate and communicate the environmental performance of their bioplastic product portfolio.

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 Envison Web platform which allows access through a standard web browser to high quality LCA models in the GaBi database. The platform allows for the comparison of different product scenarios and provides immediate results represented in a customized PDF report.

The Bioplastics Tool covers the complete life-cycle of bio-plastics products and allows for a choice of different feedstocks, bio-plastic materials (for example: PP, PE, PLA, PET, starch blends), standard and customized compounding and converting steps, transport along the supply chain and end-of-life options (incineration, land-fill, recycling, composting, where applicable). The tool also enables for a comparison with petrochemical-based plastics and the results are calculated for several environmental impact categories such as the carbon footprint and displayed in a customized report.



The new Bioplastics LCA-Tool

thinkstep provides the Bioplastics 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.

Further customization to include for example unusual feedstocks, new bioplastic materials or specific compounding or converting processes is possible upon request.

About thinkstep

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

Our industry experience:

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



We help companies develop sustainably

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