

Putting the metrics behind sustainability at Lucite.



LUCITE



Gaining Environmental Impact Visibility and Discovering improvement opportunities

As one of the world's largest suppliers of methylmethacrylate (MMA) and polymethylmethacrylate (PMMA), Lucite wanted to understand their environmental impacts. Using life cycle assessment and SimaPro the plastics company gained insight and visibility into their product's environmental impacts, and discovered improvement opportunities.

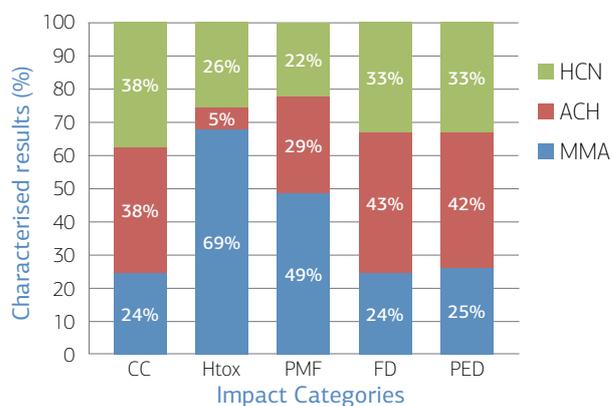
The Challenge

Plastics Europe is a branch industry association dedicated to promoting the use of plastics in different sectors. Member companies are provided with the best average industry data for use in their product assessments. Plastics Europe is in the process of updating the environmental profiles of MMA and PMMA, and needs high quality inventory data. Lucite, one of the world's largest suppliers of acrylic-based products, was asked to provide the inventory data. Lucite contacted PRé to compile the life cycle inventory data for MMA and PMMA and create the environmental profiles.

PRé Solution

Creating robust, high quality inventory data for MMA and PMMA required close collaboration between PRé and Lucite, due to the complexity of the product life cycle and the strict data requirements. The data and data sources were evaluated and verified, based on specific criteria, and reported separately.

To create an industry average dataset for MMA and PMMA, Plastics Europe used data from Lucite, as well as from other companies. Without transparency into how the product life cycle was modelled, consolidating datasets is virtually impossible. For these reasons, PRé carried out a study compliant with the ISO 14040/44 standards, including an independent third party review.



The product life cycle for MMA and PMMA was modelled using the LCA software SimaPro, developed by PRé. The model can be easily shared with interested parties and exported in different formats. For Lucite, the advantage of having a model created with parameters is that the model can be linked to data files for automated updates. The add-on software ReportMaker also allows for automated updates of the monitoring report.

Business Value

Lucite initially contacted PRé because they needed to provide Plastics Europe with high quality inventory data. Over the course of the project, however, Lucite gained in-depth insight into the environmental profile of MMA and PMMA, and discovered the following benefits:

- Visibility into all environmental impacts, highlighting raw material sourcing as a hotspot
- Benchmark for external product comparison
- Easily updated parameterized model in SimaPro, which can be used for monitoring and reporting
- Relevant ISO compliant study results can be used for B2B communication, as well as consumer communication



Creating Business Value Through Sustainability Metrics

Sustainability Metrics Consulting

Sustainability in business has become a core business concern and a driving factor in creating business value. PRé offers a range of consulting services, provided by a team of experts who will work with you to choose, create and deliver the right metrics for your sustainability goals.

PIONEERING Developing Innovative New Metrics For New Challenges

Societal and stakeholder expectations for implementing sustainability in business are becoming more demanding. Sometimes, off-the-shelf metrics cannot help you answer their questions. PRé has extensive experience in life-cycle-based metrics pioneering: implementing cutting-edge new product metrics and developing completely new, scientifically sound and robust metrics. PRé has been the driving force behind many ground-breaking initiatives like ReCiPe or the Handbook for Product Social Impact Assessment.

INTEGRATION Integrating Sustainability Metrics In Your Business

To create business value from sustainability, your business needs to integrate sustainability metrics across its business functions. You can't improve what you can't measure. PRé has the expertise required to help you choose the right metrics and to integrate sustainability into your day-to-day operations. PRé also supports you in increasing the efficiency of your LCA work and in empowering your LCA practitioners.

DELIVERY Expert LCA Knowledge To Measure Sustainability Performance

LCA has proven to be a robust and science-based way to measure and communicate your sustainability performance. PRé can review your LCA studies, deliver EPDs, footprints and other metrics, and provide you with completely new LCA studies to measure your impact. Our consultants are renowned for their expertise in specific topics, such as impact assessment, uncertainty, normalisation, toxicity, social sustainability and databases. PRé offers training courses and in-house training that build a solid knowledge base to help you conduct LCA studies yourself.

Get In Touch With PRé
We're always happy to discuss your sustainability challenges with you. If you have any questions, feel free to contact our offices in the Netherlands and the US.

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We look forward to being your partner in putting the metrics behind sustainability.

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Those Who Have Gone Before – Market-leading Businesses That Are Creating Value From Sustainability Metrics

PRé has built a worldwide reputation as a leader on environmental and social impact assessment. We work with organisations and institutes such as the European Commission, European Space Agency, Heineken, BASF, Philips, L'Oréal and DSM.



About PRé

PRé has been a leading voice in sustainability metrics and life cycle thinking, since 1990, pioneering the field of product and supply chain sustainability metrics. We've developed some of the world's most widely recognised and applied environmental impact assessment methods, as well as the world's leading LCA software, SimaPro. From the very first, we have not only focused on developing the science of LCA, but also its application – helping companies create value by using state-of-the-art measuring, monitoring and analysis methodologies to improve their sustainability performance.

Find out more about what we can do for your organisation at www.pre-sustainability.com

