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The mass balance method for foams

IT'S ONLY POSSIBLE AS A TEAM!

Although mass-balanced foam materials are still in the early stages of market maturity, we would like to proactively provide information and look for partners who will work with us to establish this process along the entire value chain and launch these new products on the market. This can only be accomplished as a team! A few larger companies are already taking the first steps in this direction, so we are not alone.

- Increasing range of ISCC PLUS-certified, mass-balanced chemical raw materials
- First certifications of production sites of various manufacturers of foam materials

We're developing the future together with you. Contact us!

Oskar Pahlke GmbH
Linzer Straße 95
53562 St. Katharinen
Germany

Phone: +49 2645 9523-0
Fax: +49 2645 9523-40
info@pahlke-schaumstoffe.de
www.sustainable-foams.com

Pahlke® Schaumstoffe
HONESTLY SUSTAINABLE

Reducing the use of fossil raw materials, intensifying the circular economy.

FOAM MATERIALS
PRODUCED &
PROCESSED
SUSTAINABLY

Pahlke® Schaumstoffe
HONESTLY SUSTAINABLE

How does the mass balance method work?

THE MASS BALANCE METHOD

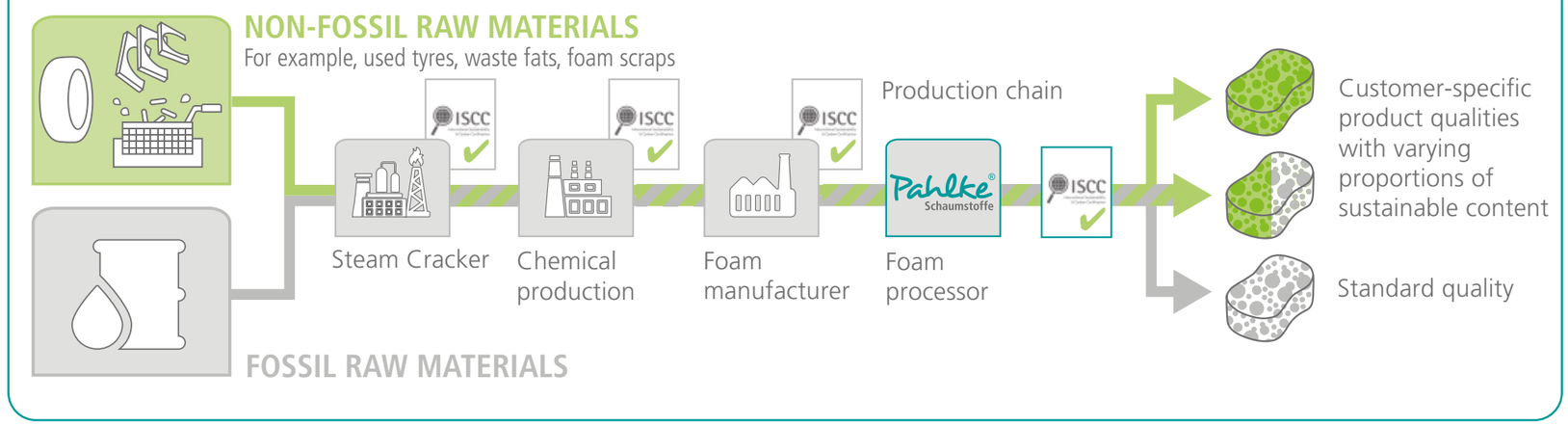
The mass balance method is a calculation system for products with certified sustainable content. Circular raw materials such as plant waste, organic residues, and used plastics are fed into the process at the beginning of the production chain and converted into basic chemical components. They can be mixed with conventionally produced basic components. The proportion of sustainable raw materials of the total mass of all raw materials used is calculated and certified—hence the term "mass balance."

- The aim is to reduce the proportion of fossil raw materials by converting waste into raw materials for the production of foam materials.

HOW DOES IT WORK IN THE FOAM INDUSTRY?

Unlike PET, for example, PUR flexible foam cannot simply be melted down and remoulded at the end of its life cycle. In the production of the two main components (isocyanates and polyols), however, various "more sustainable" non-fossil raw materials can be used, such as previously non-recyclable waste and residual materials like used plastics, food waste, and agricultural waste. By means of chemical recycling (pyrolysis), these residual materials are converted into basic chemical components, and new isocyanates and polyols are produced.

- These isocyanates and polyols do not differ from conventionally produced ones.
- None of the processes in the rest of the production chain need to be changed.



WHAT ROLE DOES CERTIFICATION PLAY?

As with green electricity, the proportion of sustainable raw materials used at the beginning of the chain must be verified. Independent third parties therefore check and balance the proportion of each product using transparent certification systems. This ensures credibility and makes the entire process verifiable.

ISCC PLUS CERTIFICATION

With the ISCC PLUS seal, ISCC (International Sustainability & Carbon Certification) offers a certification system that documents the proportion of sustainable raw materials in the value chain. ISCC PLUS-certified companies undertake to comply with sustainability criteria and are regularly audited.
In addition to ISCC PLUS, there are also other certification systems such as REDcert, which also ensure that the proportion is calculated and balanced correctly.

ARE YOU INTERESTED IN ISCC PLUS AND IN PROMOTING IT?

Every member of the value chain must be part of the certification system.
Depending on your role in the chain, you will need either a certificate or a license.

OPPORTUNITIES ...

- Using less fossil raw materials
- Recycling waste
- Reducing "thermally recycled" waste
- Having the entire value chain as part of the certification system
- Gaining a high level of credibility thanks to independent certification system

... AND CHALLENGES

- Mass balance method is not well known and still needs considerable explanation
- Range of mass-balanced foam materials is currently still very limited
- Lack of data in terms of life cycle assessment
- Entire value chain requires paid certificates or licenses