



# BIO, CIRCLE and Mass Balance Approach

Sustainability



# Our Sustainability Approach

Synthomer is one of the world's foremost suppliers of waterborne and solvent free polymers with a strong presence in key industries such as Health & Protection, Coatings, Construction, Energy, Adhesives and Performance Materials. We are driven by innovation to better enhance our customers' products and processes with sustainability as the ultimate aim.

Synthomer's near-term greenhouse gas (GHG) emissions reduction targets to reduce Scope 1 and 2 absolute emissions by 47% and reduce Scope 3 absolute emissions by 28% by 2030 from a 2019 baseline have been validated by the Science Based Targets initiative (SBTi).

Synthomer is committed to achieving net zero emissions by 2050. As part of this commitment and in line with the transition to lower carbon raw materials, we are introducing two new brand tags: **BIO** and **CIRCLE**. These tags will clearly identify products made with more sustainable raw materials, in addition to our well-established brands. We are exploring both the mass balance approach and physical segregation to ensure that all viable solutions contribute to our shared goal.



**Climate Action**

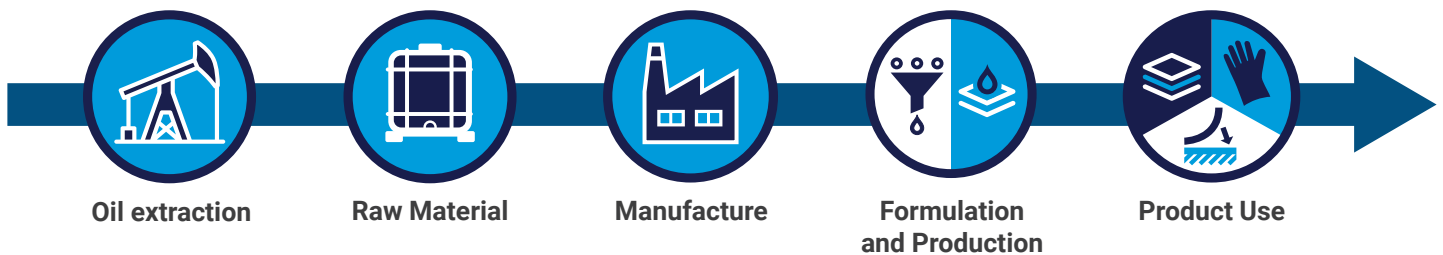


**Diversity, Equity & Inclusion**



**Sustainable Innovation**

## Our Value Chain



*Schematic illustration of a product life cycle in a traditional linear value chain*

The transition to a net zero economy requires the rethinking of the value chain, both in terms of raw materials and in terms of circularity.

International Sustainability and Carbon Certification (ISCC) PLUS is a credible sustainable certification system for bio-based, circular, and bio-circular raw materials. The certification is based on a value-chain approach, interconnecting the entire supply chain, from cultivation to chemical manufacturers to the final brand owner. This approach ensures that companies along the value chain meet the environmental and social standards to foster bio and circular economy across multiple industries including food, chemicals, plastics, packaging etc.

Synthomer plc has received ISCC PLUS certification which verifies the traceability of incoming and outgoing sustainable materials along the value chain. This is an important milestone for Synthomer as it enables divisions to pursue site specific certifications and to utilize ISCC certified raw materials, allowing us to offer ISCC certified sustainable products to customers using the mass balance approach.

Exploring alternative options for bio-based raw materials that can be physically segregated throughout the entire value chain, and tracked using carbon 14 (C14) analysis and certification, is another way to reduce the carbon footprint of the value chain.



*Learn more about ISCC's Key Pillars by scanning this code:*





# Mass Balance Approach

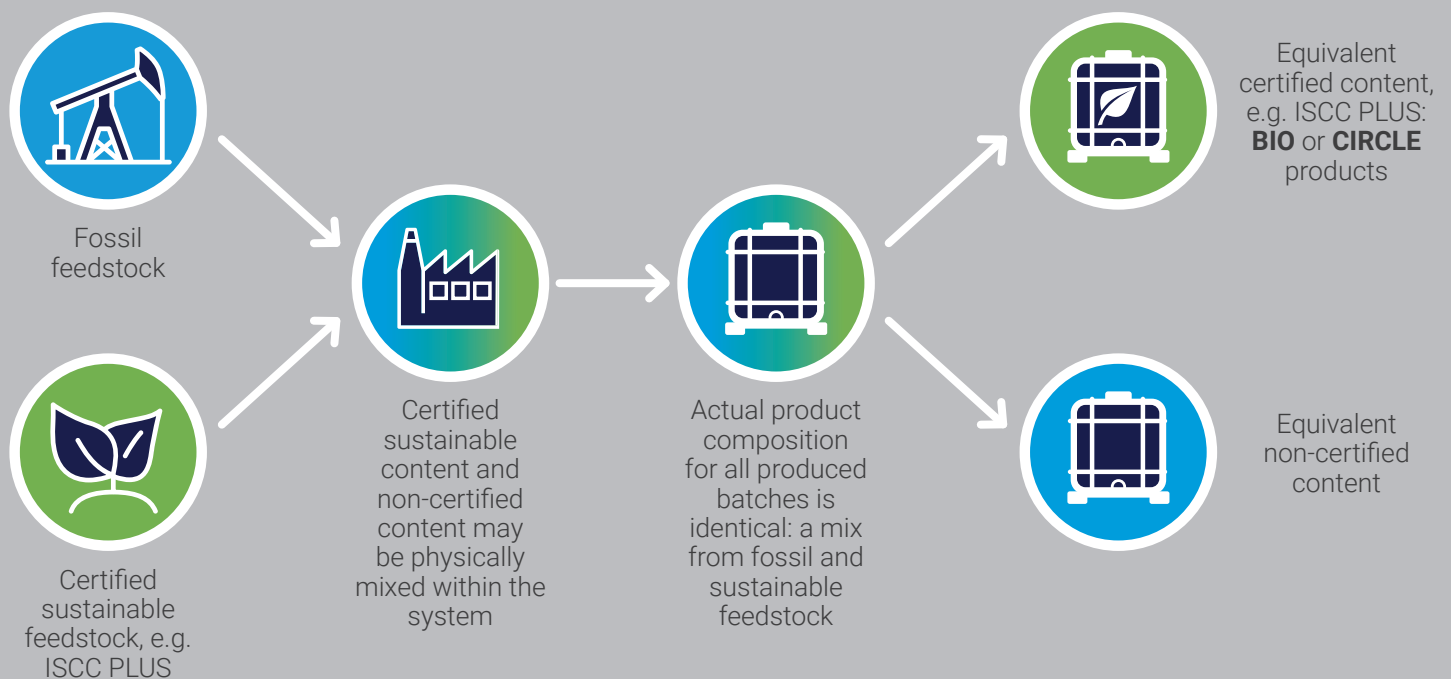
The mass balance approach is a transparent bookkeeping process that tracks the portion of sustainable material used and produced within a system or supply chain. It allows for the tracking of the net amount of sustainable materials as they move through the system and ensures an appropriate allocation of those materials to finished goods based on auditable book keeping.

This approach enables the gradual replacement of fossil materials with renewable ones, without the need for physical segregation. This serves as a practical approach for industries to transition to sustainability in a continuous manner.

## What are the advantages of the Mass Balance Approach?

- Swift progression towards a circular economy with carbon neutrality
- Adaptable scalability without compromising product quality
- Cost-effectiveness in the production of lower carbon products
- A proven and effective approach with a track record of success
- Enhanced transparency facilitating informed sustainable purchasing decisions

## How it works:



## The output cannot exceed the input

Two inputs of raw materials mixed together – one fossil and one sustainable input – makes two mass-balanced products from which one can claim sustainability credits and the second cannot.

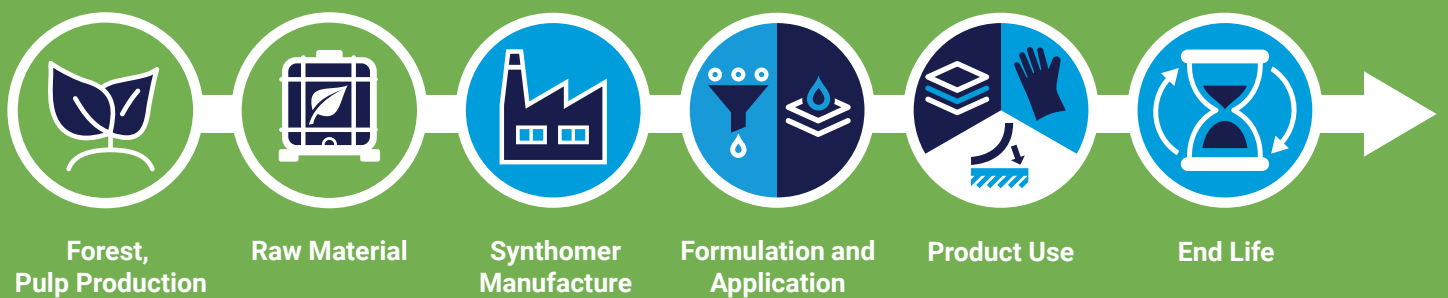


# BIO products

The BIO brand designator from Synthomer signifies materials containing at least 20% of material from bio sources, which can be achieved through either the certified mass balance approach or physical segregation, verified by C14 analysis.



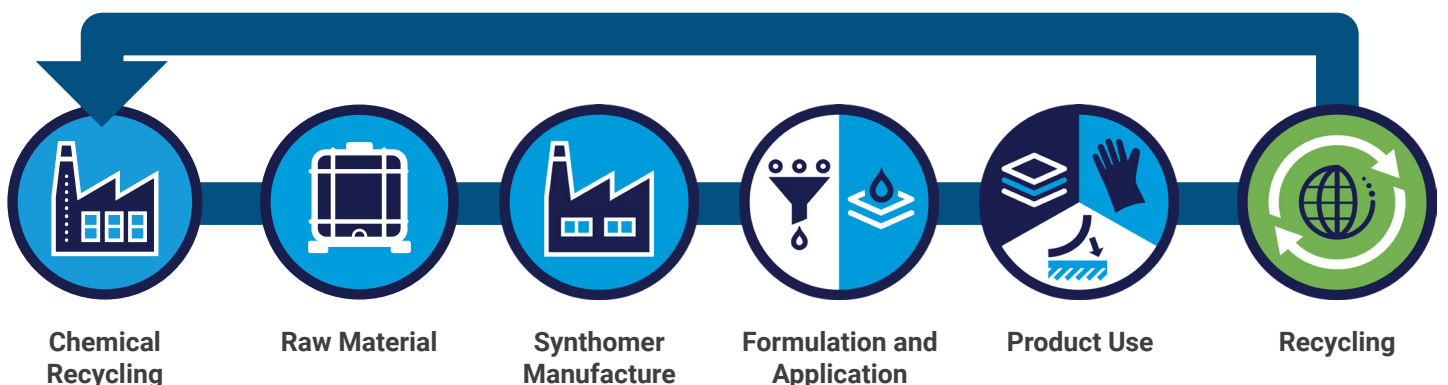
Bio feedstocks include those derived from forest products, plant-based streams, and biowaste streams. Carbon sequestration occurring throughout the lifespan of bio-based materials leads to a reduction in the overall carbon footprint of the system, which is currently assessed at the end of life. The certification process ensures that these feedstocks meet the specified criteria, promoting transparency and accountability in the use of bio-based materials. The BIO designator is used alongside with our well-established brands.



# CIRCLE products

The CIRCLE brand designator is used for products which contain a minimum of 20% of circular certified feedstock e.g. by ISCC PLUS. This certification process ensures that a significant portion of the material follows a circular economy model, contributing to sustainable practices.

Circular feedstocks are derived from recycled plastics, packaging materials, tires, mattresses, diapers, and similar sources. The emphasis on mass balance certification reinforces the commitment to sustainable sourcing and utilization, aligning with the principles of a circular economy. Similarly to the BIO designator, CIRCLE is used alongside with our well-established brands.



**Bio-based raw material** absorbs CO<sub>2</sub> during the growth (biogenic carbon) whereas **circular products** from recycling of plastic waste avoids GHG from incineration of plastic waste. Bio and Circular products reduce/eliminate GHG emissions at the end of life.

## Leading in Emulsions and Speciality Polymers

Synthomer is one of the world's leading suppliers of emulsion and speciality polymers supporting leadership positions in many market segments including coatings, construction, technical textiles, adhesives, paper and synthetic latex gloves.



Synthomer is able to serve through a strong network of local technical service and sales branches, supported by regional application development and production in our key markets.

*We deliver the right formula, globally, individually.*

Are you interested in reaching out to us? Access our network of Synthomer locations and key contacts effortlessly by scanning this QR code and let the conversation around your specific product and application requirements begin.



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