

Cement Co-processing of End-of-Life Composites Avoids up to 1 Ton of CO₂ Emissions Per Ton Processed



Our nine industry associations¹ have commissioned SGS INTRON to prepare a Life Cycle Assessment (LCA) report exploring the environmental impacts of treating End-of-Life (EoL) composites by co-processing in a cement facility.

The independent and peer-reviewed LCA report confirms the positive environmental impact of this end-of-life solution for glass fibre reinforced thermoset composites which are used in various applications, including the automotive, construction, wind and recreational boating sectors.

The report reveals that **each ton of EoL composite waste treated in a cement facility saves up to 1 ton of CO₂ compared to traditional waste incineration methods.**

On the one hand this process of cement co-processing avoids emissions from waste incineration (approximately 500^(*) kg of CO₂ per ton of EoL composites) and on the other hand it reduces emissions from cement production by approximately 330^(*) kg CO₂ per ton of EoL composites resulting in an average combined emission saving of 830 kg CO₂.

(): Above savings are weighted average for various compositions of End-of-Life composites. Depending on the End-of-Life composites material composition, the actual saving can vary from 560 up to 1130 kg CO₂.*

In addition to CO₂ savings, cement co-processing of composites offers two other significant benefits that lower the environmental footprint of the cement industry:

¹ CEFIC UP/VE Sector Group, CEMBUREAU, Epoxy Europe, EuCIA, the European Alliance for SMC BMC, European Boating Industry, Glass Fibre Europe, Tech-Fab Europe, and WindEurope.

- Reduced need for virgin raw materials by recovering the glass fiber fraction of EoL composite.
- Reduced need for fossil energy sources by the efficient recovery of the energy content from the resin fraction.

With the publication of this report, our associations call on the decision-makers **to recognize cement co-processing as recycling process** for its mineral fraction². This recognition would be highly beneficial, accelerating the adoption of this existing solution to process EoL composites and fostering the development of a sustainable waste collection system for EoL composites,

Having such a collection system in place will pave the way for other circular technology solutions that currently lack the necessary waste stream visibility to attract the public and private investments needed for expansion.

Our associations continue to collaborate in support of all sustainable recycling solutions for EoL composite materials. Together we call on EU policymakers to help build a supply chain for circular solutions to treat EoL composites³.

A summary of the report can be found under the link [hereby](#). The full report and LCA software import files will be available for stakeholders through contacting EuCIA (contact@eucia.eu).

² <https://glassfibreeurope.eu/wp-content/uploads/2023/06/Joint-position-Co-processing-Composites-June-2023.pdf>

³ <https://glassfibreeurope.eu/wp-content/uploads/2024/05/Joint-Position-paper-Enabling-circular-composites-starts-with-waste-codes-May-2024.pdf>