RECYSITE

PRODUCING GREEN COMPOSITES

Green Composites are novel solutions of the circular economy designed to guarantee sustainability in the plastic sector by combining recycled and recyclable biobased materials

MAIN FEATURES

Premium quality

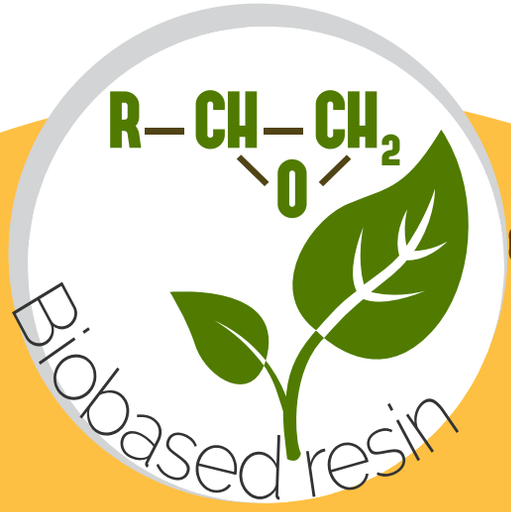
Our Green Composites will be just as strong as any other composite. Rheology and ISO tests will be carried out. Real cases in the areas of transportation and construction will be validated in our demonstrators

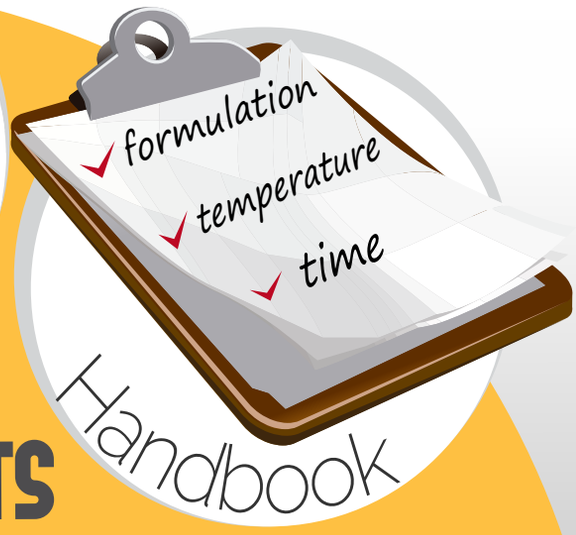
Reusable, Recyclable, Repairable

Green composites will be recyclable by different methods (hot pressing, grinding and dissolution). The recycled granules will be used again to produce new objects. Self-healing ready.

Biobased

The reinforcement used will be natural fibres from flax waste. The resin used as the matrix for the different layers will include biobased resins, such as epoxidized vegetable oils, and other biobased monomers.





MAIN ELEMENTS

The reinforced structure of the composite will be non-wovens or needlefelts made-up from linseed straw (agricultural waste). It will be processed and optimised for its industrialisation by Centexbel and La Zeloise.

The biobased resin will be provided by Avantium and CNRS. It will be extracted from processing two residues: linseed oil and humins.

Adaptation and optimisation of processing technologies to widely spread this recyclable and reusable biocomposites, as manufacturing protocols and guidelines, will be validated and carried out by Cidetec and Aitiip. The demonstrators for validation will be manufactured by Sispra.

PRODUCTION OF FULLY
RECYCLABLE AND REUSABLE
GREEN COMPOSITES BASED ON
BIORESINS AND NATURAL FIBERS

CONSORTIUM

This project is coordinated by Centexbel (BE). Other partners participanting are: Aitiip (ES), Avantium (NL), Sispra (ES), Cnrs (FR) and La Zeloise (BE). Implementation 2016-2019

VALIDATION

Two real demonstrators will be set-up to test the characteristics and performance of the Green Composites: Truck trailer doors and panels of ventilated facade will be fabricated.

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