RECYSITE

PRODUCING GREEN COMPOSITES

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

MAIN FEATURES

PREMIUM QUALITY

Rheology and ISO tests are carried out to demonstrate that the Green composites will be just as strong as any other composite. Demonstrators will validate their use in real transportation and construction application areas.

REUSABLE, RECYCLABLE, REPAIRABLE

The Green composites will be recycable by different methods (hot pressing, grinding and dissolution). The recycled granules will be reused in the production of new objects, with self-healing properties.

BIOBASED

The Green composites will be reinforced with natural fibres made from flax waste. The matrix will contain biobased resins, such as epoxidized vegetable oils and other biobased monomers.

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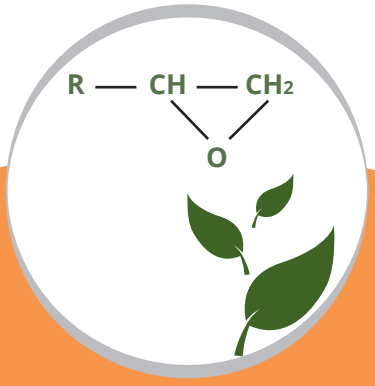
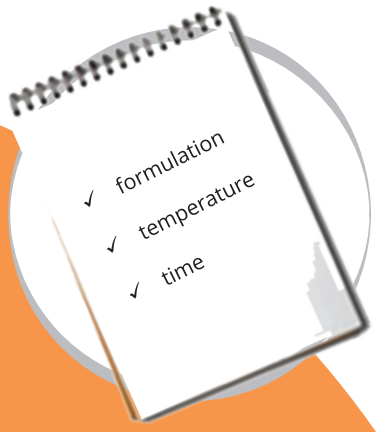
natural fibres



biobased resins



handbook

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 & NATURAL FIBRES**

CONSORTIUM

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Partners: Aitiip (ES), Avantium (NL), Cnrs (FR), Sispra (ES), Cidetec (ES) and La Zéloise (BE)

VALIDATION

Two demonstrators will be produced to assess the characteristics and performance of the Green Composites:

1. **Truck trailor doors**
2. **Panels of ventilated facade**

2016-2019

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