

Acting on Climate

#LHLowCarbonTransition

Fastcarb: Accelerating the Recarbonation of Recycled Aggregates

What is the challenge?

Industrial carbon emissions need to be captured, be stored or transformed into new usages.

One solution relies on using the natural ability of concrete to recarbonate (ie. absorb CO₂) and on accelerating its process.

How can we transform CO₂ emissions into construction materials?

Key figures

Through natural carbonation, concrete absorbs up to 25% of the originally emitted CO₂ during the cement manufacturing.

Accelerated recarbonation of recycled aggregates will even more increase CO₂ capture.

Our solution

Fastcarb is a collaborative research and development project to accelerate the carbonation of concrete on recycled aggregates issued from construction & demolition waste. This come in addition to the natural carbonation of concrete that can be taken into account in Life Cycle Analysis (LCA).

The demonstrator, being installed in our Val d'Azergues plant in France, will allow to recarbonate several tons of recycled aggregates using directly CO₂ emissions from the cement plant. Recarbonated recycled aggregates' performance will be evaluated on various concretes.

The Fastcarb national project is sponsored by French authorities and has 22 partners.



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