

RecFib Glass

Current project status

- Aimed at waste operators, material manufacturers for construction, paving roads, use in plastic/polymer solutions...
- Technology with potential for a utility model or patent

Silicon Oxide in fiberglass is harmful

- Silicon Oxide (SiO_2) processed to obtain Silicon is harmful to human health and can be detrimental to ecosystems
- Low industry awareness, SiO_2 (27% of our planet) is cheap
- Silicon Oxide (SiO_2) reuse potential not used
- Widespread disregard for outdated fiberglass material
- Wind turbines and photovoltaic modules will cause large amount of fiberglass waste in medium-term

Waste management industry reluctant

- No recycling procedure to treat obsolete fiberglass
- All focused-on incineration, damaging the environment.
- Fiberglass in landfills exposed to the sun (photodegradation) can cause health problems by inhalation

Fiberglass recycling process

- Mixture of components: Silicon Oxide, plastics and resins
- Recycling in 3 stages: Preparation and crushing; Processing and separation of impurities; Packaging and delivery

Recycling infrastructure

- Waste management equipment (conveyor belt, volumes or containers, blades for chopping, crushing mills, a hydro cyclone chamber)
- Pneumatic technology to insert/extract material
- Electronic control unit based on infrared detection

Smart detection solution

- Artificial Intelligence vision capabilities to characterize fiberglass properties
- Processing unit with programmable automaton
- Means to quantify quality of processed silicon
- Connectivity to central cloud services