



REACT is a three year research and innovation project funded by the European Commission under the Horizon 2020 programme.

The project addresses the management of waste acrylic textiles coming from outdoor awnings and furnishing. A crucial issue is the analysis and removal of finishing substances that affect the secondary raw material purity and their management. Then, a mechanical recycling process will be implemented to obtain second life fibres and fabrics, whose performance will be tested for the best application.

@project\_react



company/react-project

WWW.REACT-PROJECT.NET



The REACT project is funded by the European Horizon 2020 Programme under grant agreement N° 820869



RECYCLING OF ACRYLIC

TEXTILE WASTE FROM

OUTDOOR AWNINGS

AND FURNISHINGS

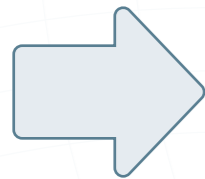
react-project.net



IT IS ESTIMATED THAT EVERY YEAR, IN EUROPE, ABOUT 7'700 TONNES OF ACRYLIC TEXTILE WASTE ARE DISPOSED OF BY LANDFILL OR INCINERATION

Acrylic fibre is used for clothing, outdoor furniture, boat covers and awnings, with almost 2 million tonnes produced every year.

**In the 'awning and outdoor furnishing' textile market, acrylic is still the main material used** (more than 90% of production) **thanks to its unmatched performance** (combination of weatherability, UV resistance and mechanical strength).



- 11'000 tonnes/year of outdoor acrylic textiles
- 2.5 million awnings installed in Europe

## OUR GOAL

Our goal is to identify processes to treat and recycle acrylic textile waste in an ecological and economical way. We aim to enable European fabric producers to improve sustainability and reduce environmental and health risks, by disposing of less waste, recovering hazardous chemicals and using smaller amounts of traditional chemicals.



## OUR IMPACT

The project aims to have the following impact in Europe:

- **Increased recycling rate and reduced landfill and incineration of secondary raw materials.**
  - Target: collect 5% of the acrylic textile waste within two years after the project's end.
- **Increased purity and quality of secondary raw materials:**
  - Target: remove 90% of harmful chemicals used in the finishing process.
  - Our back-end logistics approach will lead to a higher quality and value of the recycled secondary raw material (aspect and performance), thanks to the sorting and selection of waste.
- **Reduced risk of retaining hazardous substances in recycled materials.**
- **Technology transfer to other sectors.**

