

Recoustics – Acoustically effective nonwovens made from textile residues

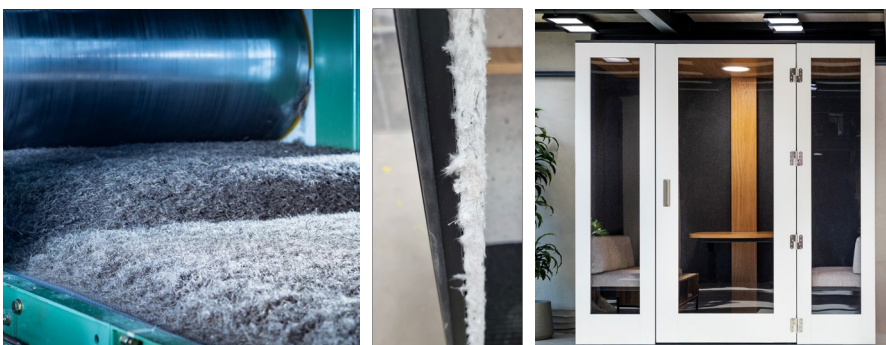
Problem / Motivation

- The chemical recycling of mixed textile fractions produces textile residues that are currently not used as materials, but are instead thermally recycled or disposed of
- The aim of this research project is the re-utilisation of textile residues from chemical recycling using efficient treatment and processing methods
- Sound-absorbing design products, such as acoustic walls or furniture, are identified as the target market
- The advantages in the development of acoustic nonwovens are the excellent suitability of nonwoven formation processes for processing textile waste materials after they have been recycled as well as their usage as a sound-absorbing component underneath a visually appealing top layer if required



Solution

- The acquisition of textile waste materials as well as the mechanical processing and the formation, bonding and finishing of nonwovens are carried out by the STFI
- The necessary preparation and processing technologies are available at STFI from pilot to semi-industrial scale
- The nonwovens produced will be further processed into sound-absorbing design products by industrial partners of the project



Processing of tear fibres at STFI (left), tear fibre surface with sound-absorbing effect in the insulating wall (centre) of a sound booth (right) © STFI/MEAVO

Project Launch

07/2024

Project Partner

Re-Fresh Global

Acknowledgement

We would like to thank the Federal Ministry for Economic Affairs and Climate Action for funding the research project Recoustics (Reg. No. 49MF230085) within the funding programme "FuE-Förderung gemeinnütziger externer Industrieforschungseinrichtungen – Innovationskompetenz (INNO-KOM) – Marktorientierte Forschung und Entwicklung (MF)".

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on the basis of a decision by the German Bundestag