PUReSmart

PolyUrethane Recycling Towards
a Smart Circular Economy

Deliverable

D4.7 Reprocessing method for foam to elastomer and elastomer to elastomer

WP4 – Smart Design

Project Information

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Publishable Summary

The PUReSmart consortium aims to develop a new reprocessing technology targeting to recycle newly designed polyurethane foams back to foams, ideally usable in the same type of applications. The newly designed polyurethane foams are called CAPU foams for Covalent Adaptable PolyUrethane foams. As an in-between step in the foam-to-foam reprocessing and to allow the evaluation and ranking of the new dynamic CAPU materials, the reprocessing of the obtained CAPU foams into elastomers is first evaluated. Those elastomers should then further be recyclable (elastomer-to-elastomer cycle) thanks to their covalent adaptable networks. This deliverable reports the work performed on the selection and validation of the reprocessing method for foam-to-elastomer and further elastomer-to-elastomer reprocessing of the CAPU foams.