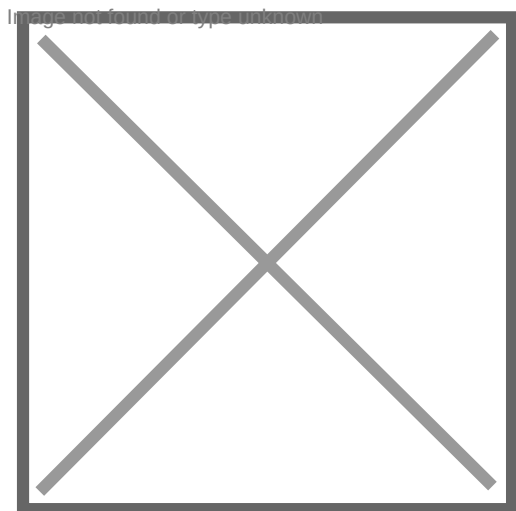




CE-SC5-01-2018

REMADYL

Full Title: Removal of Legacy Substances from polyvinylchloride (PVC) via a continuous and sustainable extrusion process

Aim:

REMADYL aims at 'rejuvenating' PVC from postconsumer waste (e.g. windows frames; tubes; flooring; cables, etc.) through the removal of hazardous legacy additives, including heavy metals; and demonstrating the circular economy use of the rejuvenated PVC materials. A novel breakthrough extraction technology will be used in combination with novel solvents and melt filtration to turn the post-consumer waste into high purity PVC.

Concept:

The core innovation consists of the removal of LS (legacy substances), currently the main persistent barrier for PVC recycling, using novel solvents and melt filtration. The extracted phthalate plasticisers will be safely disposed of with energy valorisation and the recovered lead will be reused in batteries. REMADYL will deliver a breakthrough support to the Circular Economy Package and resource efficiency targets for EU as increasing recovered PVC will reduce incineration and landfilling. The REMADYL process also has the potential to easily deal with other plastics applications (e.g. removal of halogenated flame retardants). During the first year of activity a lab-scale synthesis of various samples to allow the testing of the lead removal has been completed. Safety aspects have been studied, leading to best practices, standardisation inputs and policy recommendations. The REMADYL consortium consists of 15 multidisciplinary partners, including nine companies, covering all the expertise to maximise the project's impact.

Start date:

01/06/2019

End date:
31/05/2023