

RAMPF: Chemical recycling expertise for European project URBANREC

Development of high-quality alternative polyols from bulky waste

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Pirmasens, November 9, 2018. In the European project URBANREC, leading experts from seven countries are working on solutions for the valorization of bulky waste. RAMPF Eco Solutions has the task of developing chemical solutions for obtaining high-value recycled polyols from plastic waste such as mattresses and upholstery.

In spite of the measures taken with regard to urban waste management in favor of a circular economy, bulky waste still represents a major challenge for being recovered. More than 60 percent of the 19 million tons of furniture, mattresses, upholstery, textiles, and plastic garden products thrown away each year in European countries end up in landfills.

To improve the logistics and treatment of bulky waste, the European project URBANREC was initiated. Entities from seven different countries are taking part, including public institutions in Belgium, Poland, Spain, and Turkey.

The objective is the development and implementation of an eco-innovative and integral bulky waste management system for promoting prevention and reuse, improving logistics, and allowing new waste treatments to obtain high-quality recycled products such as adhesives, foams, fiber/felt-reinforced composites, and solvents.

Furthermore, the project aims to achieve an 82 percent recovery rate of bulky waste across Europe with a net profit of 225.6 €/ton, which represents an annual net profit of more than 2 billion €.

Chemical solutions for high-quality alternative polyols

In the URBANREC project, RAMPF Eco Solutions has the task of developing chemical solutions for obtaining high-quality alternative polyols from plastic waste. “We use solvolysis – glycolysis, acidolysis, and polyolysis – to valorize waste production materials such as post-consumer polyurethane for the manufacture of alternative polyols”, explains Marco Werth, Director of Sales & Marketing at RAMPF Eco Solutions. “These are then integrated back into the production process, amongst others for insulation materials, adhesives, and flexible foams, which creates a sustainable cycle that delivers both environmental and economic benefits.”

RAMPF Eco Solutions also develops and produces polyols based on renewable raw materials, further reducing the dependence on dwindling petrochemical raw materials.

Press Release

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For more than 25 years, RAMPF Eco Solutions has devoted itself to the development of alternative polyols. In two of the largest facilities of their kind in Europe, tailored polyols are industrially manufactured from polyurethane residues using a specially developed chemical process.



Thrown away, not recycled: The European project URBANREC aims to improve the logistics and treatment of bulky waste.



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RAMPF Eco Solutions GmbH & Co. KG based in Pirmasens, Germany, is an expert in chemical solutions for manufacturing high-quality alternative polyols.

Core competence is the manufacture of alternative polyols from waste materials of PU producers. Waste materials from sister companies RAMPF Polymer Solutions and RAMPF Tooling Solutions are also processed.

Furthermore, the company has developed chemical processes that enables PET/PSA, other polyesters (PLA, PC, PHB), and renewable or bio-based raw materials such as vegetable oils to be used as sources of raw materials for the manufacture of alternative polyols.

RAMPF Eco Solutions designs and builds customized multi-functional plants for customers who wish to manufacture alternative polyols based on PU residues, PET/PSA, polyesters, and biomonomers.

RAMPF Eco Solutions is a company of the international **RAMPF Group** based in Grafenberg, Germany.

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