

## Press release

### Pioneering the world's first high-performance coatings containing phthalic anhydride made from plastic waste

**Berlin/Germany, July 26, 2023** – Beckers Group, a global purpose-led, innovation-based coatings company, is collaborating with suppliers to incorporate raw materials, made from recycled plastic, into its paints. The ability to turn waste plastic into new raw materials will promote circularity and reduce emissions.

#### **Making circular chemistry possible**

Beckers is working in collaboration with BioBTX and the research institute Symeres to create a supply chain for sustainable aromatic monomers made from plastic waste. BioBTX has developed a method for turning waste plastic into BTX (benzene, toluene and xylene) which Symeres then take and oxidise the xylenes into aromatic phthalic monomers which Beckers can use to create resins.

Phthalic anhydride is very important for polyester resin production as it is the most commonly used aromatic acid and makes up 40-50 percent of the resins in which it is present. The phthalic anhydride produced by this route can be used as a drop in for existing phthalic anhydride produced from petroleum.

The pilot involves processing mixed plastic waste into sustainable chemical building blocks and finally high-value products, using multiple advanced sustainable chemical conversions. This includes the unique Integrated Cascading Catalytic Pyrolysis (ICCP) technology to convert mixed waste plastics and biomass into aromatics such as benzene, toluene and xylenes. Beckers is particularly interested in xylenes, which can be oxidised to produce monomers, such as phthalic anhydride, to be used in polyester resins for coatings.

#### **A world-first circular resin**

“Nobody has ever created a coil coating containing phthalic anhydride made from plastic waste, so this world first is an important step forward in terms of producing more sustainable resins and paints,” says Julien Marquiant, Resin Lab Manager at Beckers. “It really is a game changer for us and our ability to incorporate high-quality materials made from plastic waste.”

Ton Vries, Managing Director at BioBTX: “In order to reach a fully circular economy, we will need to make use of all different types of carbon resources to substitute for all the fossil resources used nowadays. The collaboration with Beckers proves that circular solutions can already be realised if parties from different industries join forces. In this case it does not only prevent the plastic waste from growing, it also simultaneously substitutes the need for fossil-based resources.”

The pilot is still being developed but can have significant sustainability benefits. Besides upcycling thousands of tonnes of waste plastic into high-value products, early estimates suggest that the process has the potential to reduce a white coating carbon emissions by at least 10 percent using such recycled material compared with virgin raw materials. Beckers will validate the quality and suitability of the phthalic anhydride produced by Symeres using the BioBTX xylene. Symeres is actively looking for a potential partner to develop and license this technology over the next 3-5 years.

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## **About Beckers**

Beckers is the number one supplier of coil coatings and a leading supplier of industrial paints worldwide. The company is a true pioneer in providing unique, high-performance coating solutions that improve customer competitiveness while protecting people and planet. With expertise based on its 150-year history, Beckers today is a global company with 1,800 employees in 23 locations in 17 countries, providing products and custom-made solutions to customers in 60 countries around the world. Beckers is owned by Lindéngruppen, a Swedish family business with a focus on the long-term development of industrial companies. Beckers' corporate headquarters are in Berlin, Germany.

[www.beckers-group.com](http://www.beckers-group.com)

## **About BioBTX**

BioBTX is a leader in renewable and biobased aromatics through developing circular economy technology. It transforms sustainable feedstock and plastic waste into high value chemical building blocks, reducing waste and CO<sub>2</sub> emissions in the process and substituting for fossil resources. BioBTX, based in Groningen, the Netherlands, expects to start commercial scale production by the beginning of 2026.

<https://biobtx.com/>

## **About Symeres**

Symeres is a leading mid-sized transatlantic Contract Research Organization for Drug Discovery and development challenges. With over 600 highly educated scientists in six locations in Europe and two in the USA, they offer solutions for drug discovery and drug development, from small to medium-sized molecule hits.

<https://symeres.com/>