HealthManagement
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Sabic & Jessa Hospital Advance Circular Polymers from Medical Plastic Recycling

In a TRUCIRCLE™ collaboration project with Jessa Hospital, Belgium, SABIC has successfully achieved an important step towards creating circular polymers based on advanced recycling of used medical plastic.

- *Collaboration with dialysis department at Jessa Hospital, Belgium, in proof-of-concept pilot project.*
- *Project has shown that non-contaminated used medical plastic can be repurposed for advanced recycling and subsequent production of medical grade polymers as part of SABIC's TRUCIRCLE™ portfolio.*

SABIC, a global leader in the chemical industry, has successfully demonstrated the feasibility of recycling used medical plastic back into the medical materials stream. The project was initiated together with the dialysis department at Jessa Hospital, one of the largest non-university medical cluster in the Limburg region of Flanders, Belgium. Serving as a pilot proof-of-concept, used medical plastic generated at Jessa's hospitals was converted to pyrolysis oil in an advanced recycling process, delivering circular feedstock for SABIC's production of TRUCIRCLE™ polymers in medical grade quality with same performance, purity and physiological safety as virgin-based medical grade polymers. This is indispensable for medical approvals by regulators.

Lada Kurelec, General Manager, Polymers Technology & Innovation at SABIC, states: "Working with Jessa Hospital has been an immensely rewarding experience, where we learned how individual belief in circularity can mobilize industry to work together. I value how this collaboration enabled creation of an ecosystem to collect and recycle non-contaminated medical waste in a very short time. Thanks to this collaboration, we are creating a certified circular TRUCIRCLE polymer portfolio able to serve the healthcare market. We are inviting other players in the value chain to join us and Jessa in this ground-breaking initiative to accelerate the circularity of plastics in the medical industry."

Advanced recycling technology and the vast experience gained through its TRUCIRCLE solutions put SABIC in a strong position to provide a circular solution designed to help Jessa Hospital reduce the environmental footprint of its medical products by avoiding their incineration after use. Approximately 85% of the used medical plastic generated at the hospital is not contaminated and therefore requires no specialized treatment. This allows it to be repurposed as feedstock for advanced recycling and subsequent production of high-quality medical grade polymers, saving virgin raw material and contributing to a more circular medical economy.

Karl Zwinnen, Project Engineer at Jessa adds: "We are very pleased with the advanced and circular recycling approach enabled by SABIC to improve our medical waste management. The setup of an efficient collection system for used medical plastic has met with strong support among our medical and healthcare staff. Besides contributing to enhanced sustainability and circularity, the solution also has an enormous potential for reducing our disposal costs. We look forward to implementing it across all Jessa locations."

As a result of this successful pilot project, SABIC is currently in the process of actively engaging partners to scale up operations and create a fully closed-loop recycling model for used medical plastic in larger volumes.

SABIC's certified circular materials are produced using mass balance accounting according to the International Sustainability & Carbon Certification (ISCC) PLUS program, which defines a set of transparent rules for tracking the material flow across complex supply chains from the feedstock to final applications. The resulting certified circular polymers form part of the company's TRUCIRCLE portfolio and services.

SABIC's TRUCIRCLE portfolio and services include certified circular polymers as well as design for recyclability, mechanically recycled products,

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certified renewable polymers from bio-based feedstock, and closed loop initiatives to recycle plastic back into high-quality applications and help prevent valuable used plastics from becoming waste.

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