

Renewable Materials Conference

PEF, the next generation plant-based plastic with unique properties

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Bio-based polymers and materials are desperately needed to replace fossil-based materials in the world's transition to a sustainable packaging industry. The focus will be on the polyester PEF (polyethylene furanoate), prepared from the di-acid FDCA and mono-ethyleneglycol. PEF is a plant-based, highly recyclable plastic, with superior performance properties (excellent barrier properties, higher glass transition temperature (T_g), good mechanical performance, and greener production process) compared to today's widely used petroleum-based packaging materials. In December 2021 Avantium announced that it has taken the Final Investment Decision (FID) to build a 5000 tonnes per year FDCA Flagship Plant. The positive FID was taken after the Company fulfilled all three Key Conditions it had defined, which include securing sufficient financing, finalising the engineering and establishing the supply chain, and obtaining sufficient offtake commitments for the Flagship Plant.

The presentation will focus on the unique packaging solutions which can be achieved by using PEF. It aims to give the audience a better understanding of current status of PEF production ramp-up, properties, the value proposition of PEF in applications and the fit of PEF in the circular economy to reduce, recycle and regenerate.