

## RecyClass Validates Avantium's PET/PEF Bottle as Fully Recyclable in PET Stream

AMSTERDAM, 30 June 2025, 18:00 hrs CEST – Avantium N.V., a leader in renewable and circular polymer materials, announces that its innovative PET/PEF multilayer bottle has been recognized as fully compatible with the PET recycling stream following an evaluation by RecyClass, the European non-profit initiative dedicated to advancing plastics circularity.

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Avantium's PEF (polyethylene furanoate), branded as releaf®, can be used in fully plant-based monolayer PEF bottles, but also has advantages in combination with PET (polyethylene terephthalate). For example, PEF can be used in multilayer PET bottles as a barrier material when the required shelf life cannot be guaranteed by a single layer of PET. Currently, many multilayer PET bottles include nylon as a barrier, which is known to cause issues when recycled within the PET recycling stream. Due to its excellent barrier properties and its close resemblance to PET, a PEF layer is an excellent alternative.

The RecyClass PET Technical Committee evaluated Avantium's PET/PEF multilayer bottle - containing 10% PEF releaf® RP90N - through lab tests by PTI-Europe and Plastics Forming Enterprises. Results confirmed full compatibility with PET recycling stream under the conditions outlined in the [RecyClass Approval Letter](#). RecyClass collaborates with the US-based Association of Plastic Recyclers (APR) to harmonize recyclability recommendations and testing procedures. Avantium's PEF received APR Critical Guidance Recognition in 2023. With both approvals, brand owners can confidently adopt PEF as a recyclable barrier layer. Additionally, RecyClass validation supports favorable acceptance by national producer responsibility organizations (PROs), which oversee compliance with Extended Producer Responsibility (EPR) regulations and determine packaging-related EPR fees. EPR is a policy mechanism that requires producers to, amongst others, pay fees based on recyclability and environmental impact.

Ingrid Goumans, director Public Affairs at Avantium, comments: "This recognition by RecyClass clearly demonstrates that PEF can be successfully integrated into the PET recycling stream. By offering a 100% high-barrier polyester solution, the PEF/PET multilayer bottle opens new possibilities for sustainable packaging. It gives brand owners and converters the confidence to adopt PEF as a functional barrier layer in their PET applications."

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### About Avantium

Avantium is a pioneering commercial-stage company focused on renewable & circular polymer materials. Avantium develops and commercializes innovative technologies for the production of materials based on sustainable carbon feedstocks, i.e. carbon from biomass or carbon from the air (CO<sub>2</sub>). The most advanced technology is the YXY® Technology that catalytically converts plant-based sugars into FDCA (furandicarboxylic acid), the key building block for the sustainable plastic PEF (polyethylene furanoate). PEF is known under the brand name Releaf®, an EU registered trademark of Avantium. Avantium has successfully demonstrated the YXY® Technology at its pilot



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plant in Geleen, the Netherlands, and is in the process of starting the world's first commercial plant for FDCA in Delfzijl, the Netherlands. Avantium works in partnership with like-minded companies around the globe to develop revolutionary renewable chemistry solutions from invention to commercial scale.

Avantium's shares are listed on Euronext Amsterdam and Euronext Brussels (symbol: AVTX). Avantium is incorporated in the Euronext Amsterdam SmallCap Index (AScX). Its offices and headquarters are in Amsterdam, the Netherlands.

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