

Press release

**Variable recycling solution for fibre and textile producers:
PURE LOOP is at ITMA with the new version of their material all-
rounder ISEC evo**

In recent years, the fibre and textile industry has been relying more and more on PURE LOOP's variable shredder-extruder solution ISEC evo for recycling production waste, and which will be in operation at the trade fair stand. What is more, the EREMA Group is to launch the latest development of this recycling machine at this year's ITMA. The ISEC evo FibrePro:IV has been specially designed for processing PET continuous fibres and fabrics.

Ansfielden, 25. April 2023 - "Our ISEC evo machine is a material all-rounder for inhouse recycling that is particularly adept at processing fibres and textiles and has already been used for this application many times over. PE, PP, PA and PET in the form of fibre bales, ropes, filaments, textiles and nonwovens can be recycled using this shredder-extruder combination," says Manfred Dobersberger, Managing Director of PURE LOOP, listing some of the system's special capabilities.

He sees great potential for this technology due to increasing demand in the fibres and textiles segment. Beginning in fibre production, through the spinning process, weaving and knitting, to clothing production, enormous amounts of production waste are generated along the entire textile value chain. The ISEC evo machine can be used almost universally in terms of fibre types and forms. Together with global partners from the textile industry, PURE LOOP is also working on raising awareness of Design for Recycling. "Different types of fibres, such as Elasthan blended with PP, PA or PET, combined in a garment complicate the recycling process due to different melting points and chemical properties, reducing the quality of the recycled pellets. This is where the industry needs to work together to install better, more circular solutions," Dobersberger said.

New solution for PET fibre to fibre loop

PURE LOOP has succeeded in taking a major technological step in this direction in the recycling of PET continuous fibres and fabrics. This is because by combining the ISEC evo

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machine with an IV optimiser, the quality of the recycled pellets could be increased to such an extent that they can also be used again for very high-quality fibre applications in the textile segment.

The ISEC evo FibrePro:IV is fed with unshredded fibre waste from production processes, and beyond the shredder it passes in a controlled flow into the extruder and is filtered. After extrusion, the melt is fine-tuned in the IV optimiser to meet the high requirements of the fibre industry. The intrinsic viscosity (IV) is raised to the required level by polycondensation so that the recycled pellets can be used again to make extremely fine fibres. Finenesses of up to two decitex are possible with 100 percent recycled pellet content. With this top level of quality, the recycled pellets can be used to make filament fibres, carpet yarns or staple fibres without adding virgin material. "Our customers and all those who are interested are welcome to see this for themselves, as we have a demo machine in operation right next to our company headquarters that is available for trials," says Dobersberger.

PURE LOOP is particularly proud of an innovative pilot project in the field of fiber-to-fiber recycling of polyester. The successful implementation of this project was possible thanks to the cooperation with RadiciGroup (Italy), a renowned international fiber manufacturer. "Recycling has enormous potential in the fiber and textiles sector. One thing I am sure about is that recycling will become a standard feature within the industry in the future. That is why I am especially pleased that this pilot project, initiated by the Radici Group, sees us taking an important step towards more sustainable production of fibers and textiles. We are proud to have contributed the recycling technology part of the project with our ISEC evo FibrePro:IV", says Merlijn van Essen, Sales Manager at PURE LOOP and responsible for this cooperation.

Live recycling demonstration at the trade fair stand

At ITMA it can also be seen first-hand how easy the ISEC evo shredder-extruder solution is to operate. PP fibre material will be processed by a version without IV optimiser. Whoever wants to can come and push the start button themselves, in Hall 9, Stand 304.

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Photos

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PET continuous fibres and fabric can be recycled very well using ISEC evo shredder-extruder technology.



Manfred Dorbersberger, Managing Director PURE LOOP GmbH; © PURE LOOP

PURE LOOP

PURE LOOP, a subsidiary of EREMA Group GmbH, specialises in combined shredder-extruder technology for the highly efficient recycling of clean production waste. The headquarters are in Ansfelden/Linz. PURE LOOP recycling solutions are characterised by optimum adaptation to the existing scrap material logistics as well as the highest level of return of recycled pellets to the production process. Customers also benefit from the experience, technological know-how and innovative strength of the entire EREMA Group. www.pureloop.com

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