



**DEMGY Group presents its innovations and news at JEC World 2024,
from 5th to 7th of March**

Hall 5 - Booth B64

*Please do not hesitate to contact me to arrange a meeting with a DEMGY Group spokesperson:
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St-Aubin-sur-Gaillon, 14 February 2024 - DEMGY Group designs and manufactures high-performance plastic and composite solutions that are lighter than metal in order to reduce carbon footprints and promote energy savings. The company, which is actively involved in the process of decarbonizing industry, will be presenting its latest innovations and news at JEC World 2024.

The Reborn project, developed in collaboration with Decathlon, embodies DEMGY's 3R strategy, a strategic approach to end-of-life and waste management, which includes the following actions:

- ✓ Reduce the amount of virgin material used to make the shoe.
- ✓ Reusing production waste to create a new product.
- ✓ Recycling end-of-life footwear more easily.

For Decathlon, DEMGY Atlantique (44) has manufactured a shoe sole made from 60% waste. To produce it, Decathlon called on DEMGY Atlantique's expertise in thermocompression of plastics and on Lonati for its machines for knitting shoe uppers.



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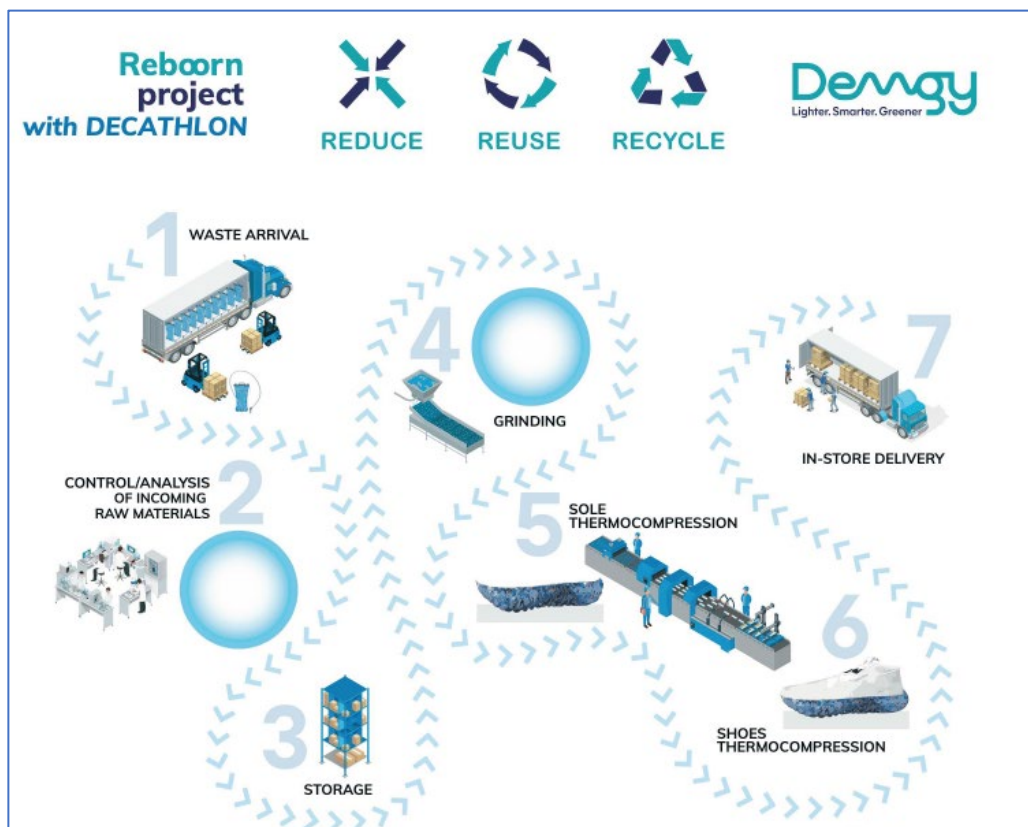


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DEMGY's thermocompression press produces the shoe's outsole from waste materials, highlighting DEMGY's expertise in polymer and composite processing. The first result of this joint project is a TPU outsole, made from 60% recycled TPU from Decathlon's running department water bags.

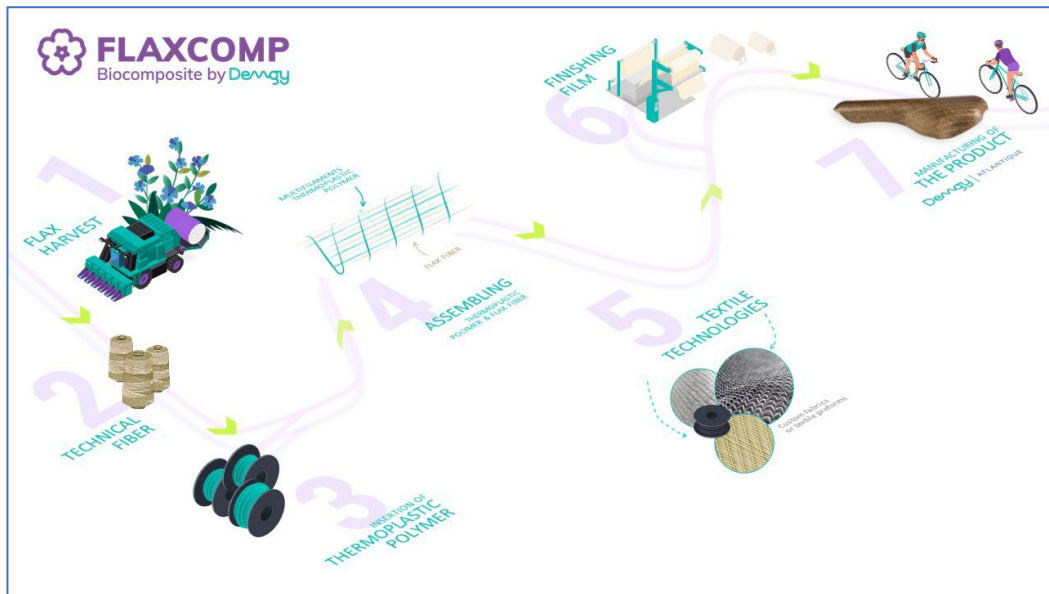
By using waste as a raw material, the shoe allows less virgin raw material to be extracted and gives these plastics a new 2nd, 3rd, 4th... life. The glue-free assembly method used to make the shoe means that the upper and sole can be disassembled and recycled. All this contributes to a more sustainable and environmentally friendly product.

Manufacturing process for the Reborn project, developed in collaboration with Decathlon.



The new value chain illustrates our mastery of innovative production processes that result in zero material waste.

FLAXCOMP®: DEMGY's expertise in ecological processes adapted to plant fiber-reinforced polymers and composites.



FLAXCOMP® CLEAR: sustainable innovation in the processing of bio-composites.



©DEMGY - FLAXCOMP® CLEAR demonstrator



©DEMGY - Zoom linen twill fabric

Flaxcomp® by DEMGY is the transformation of thermoplastic composites reinforced with natural fibers. It illustrates DEMGY's expertise in the processing of natural fiber-reinforced thermoplastic composites. The strengths of the new FLAXCOMP® CLEAR solution, a combination of a transparent resin and a natural fiber (flax combined with transparent recyclable thermoplastic resins), are as follows:

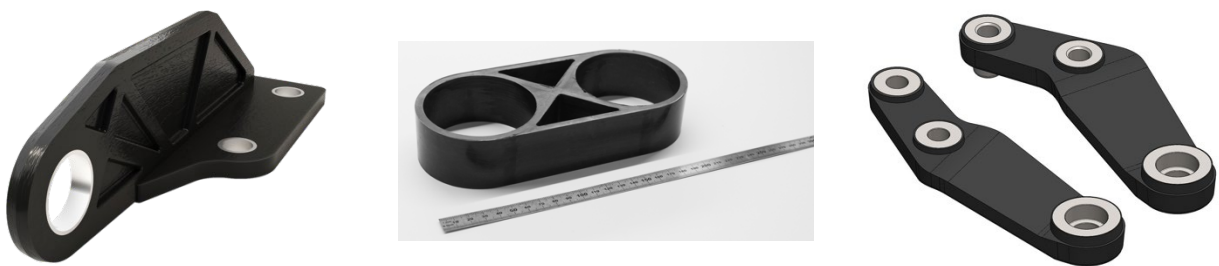
- ✓ A finish reminiscent of the brilliance of epoxy resins, an aesthetic enhancement of linen fiber thanks to a process solution that provides depth and transparency, while being 100% recyclable.
- ✓ The use of processes that respect the flax fiber to preserve its specific properties (mechanical properties and vibration absorption): 2/2 linen twill fabric combined with a transparent thermoplastic matrix.
- ✓ The innovative Flaxcomp® solution is fully customizable, with a range of options including surface texturing.
- ✓ Flaxcomp® is applicable to high-volume markets such as automotive interiors, luxury goods, sport and leisure.

The Atelier DEMGY 3D, additive manufacturing workshop is continuing to expand.

The workshop is made up of two types of technology.

- ✓ *Powder bed* technology using bio-sourced PA11 and 100% natural PEKK/PEKK carbon fibre-reinforced solutions.
- ✓ *Wire deposition* technology, which works with high-performance composites and PEEK, PEKK, PPS, PA12 and PA bio-reinforced continuous fibers. This technology makes it possible to combine complex shapes and high-performance materials, moving towards 0 waste production.

The new 9TLABS additive manufacturing machine has just joined the DEMGY 3D workshop. It offers an intermediate solution between additive manufacturing and the placement of reinforcing fibers in thermoplastic composites. With a printing volume of 350 mm x 270 mm x 250 mm, it can print parts in high-performance composites such as PEEK, PEKK, PPS, PA12, PA bio and up to 60% continuous fibers (carbon, glass, basalt).



Source & credit: @9TLabs - *showcases*

It completes the range of possibilities for transforming composites using additive manufacturing alongside the two other PEKK additive manufacturing stations:

- ✓ the EOS P 810 laser sintering machine which uses the EOS HT-23 material based on PEKK Kepstan®, (Arkema's extreme polymer, and reinforced with carbon fibers);
- ✓ the second EOS P810 using PEKK 100.



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Examples of complex technical parts using PEKK Carbon additive manufacturing.

PEKK 100, a beige-colored high-performance polymer, is based on unfilled PEKK. It offers higher elongation at break and impact resistance, while retaining high tensile strength compared with the carbon-fiber-filled HT-23 material.

At high operating temperatures, in the range 80°C to 180°C, PEKK 100 demonstrates unique capabilities, with a massive increase in toughness while retaining high strength and rigidity.

The parts and components produced by the DEMGY 3D Workshop can be metallized to provide electrical continuity or electromagnetic shielding.



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Examples of metallized parts in carbon filled PEKK additive manufacturing

DRAKE Plastics Ltd. Co and DEMGY Group form transatlantic alliance for high-performance polymer solutions

DRAKE Plastics Ltd. Co, headquartered in Cypress, Texas (USA), and the DEMGY Group, based in Saint-Aubin-sur-Gaillon, Normandy (France), have formed a strategic alliance to offer their customers in France a wider range of innovative solutions in high-performance plastics products.

The product range includes a wide range of standard and custom machinable semi-finished products of all grades of PEEK, Torlon® PAI, Ryton® PPS and Ultem™ PEI reinforced. Specialty polyketones such as KetaSpire® XT920 and Victrex HT™ as well as other high-performance materials are also available.

About DEMGY Group:

Founded in 1947, DEMGY, an innovative plastics technology group, designs and manufactures high-performance plastic and composite solutions that are lighter than metal, to promote energy savings in sectors with a high carbon footprint. DEMGY is actively involved in the process of decarbonizing industry.

Its circular Multiplasturgy® offering, a one-stop shop for its 14 areas of expertise, starts with eco-design, which enables upstream management of the end-of-life of products and their recyclability.

The Normandy-based Group has 5 sites in France, including its head office at St-Aubin-sur-Gaillon (27), 2 in Germany, 2 in Romania and 1 in the United States, as well as 3 R&D centers.

In 2023, DEMGY Group generated a turnover of €100 million, 7% of which was invested in R&D and capital expenditure. DEMGY now employs more than 800 people.



DEMGY Group is a member of the Coq Vert community, a community of managers who are convinced of the need to act and who are already committed to the ecological and energy transition.



DEMGY is an ambassador member of the French Fab.

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