



# DEMGY Group and CULTURE iN join forces to create 100% bio-sourced demonstrators... that look good too!

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Press release - Gétigné, June 11, 2024 - DEMGY Atlantique and CULTURE iN have joined forces to work on the manufacture of linen-based technical and decorative parts.

### This collaboration is based on:

- DEMGY's expertise in respectful processing of biosourced materials, and in particular its Flaxcomp® know-how in biocomposite processing<sup>(1)</sup>;
- CULTURE iN's expertise in the development and manufacture of bio-based composite materials.

CULTURE iN specializes in the manufacture of Varian®: a composite textile material with zero VOC (volatile organic compound) emissions, designed and manufactured in France using a patented technology that combines linen with a thermoplastic resin. The thermoplastic may be bio-sourced, such as polylactic acid - PLA - derived from corn or beet crops, or petro-sourced, recycled and/or recyclable, such as polypropylene - PP - when the technical constraints of the application require it.

This patented technology enables CULTURE iN to offer technical composite materials, thanks to the solvent-free impregnation of flax by thermoplastic resin.

This core impregnation ensures cohesion between reinforcement and matrix, and enables hot forming (by thermocompression, for example) to create both technical and decorative parts.

In addition to its ecological and technical characteristics, Varian®'s specificity lies in its aesthetic properties.

The technology used to manufacture the material allows a wide variety of woven aspects (colors, yarn fineness, weaving density, weaving pattern, quantity of resin...), but also different textile structures: woven, mesh, filament wound... The aspect can also be worked on during the processing of the material in the form of a part thanks to the pressure, heating and cooling parameters, as well as the design of the mold.







Varian® samples ©CULTURE iN

DEMGY Atlantique's R&D department has been working on the transformation of Varian® with a view to future applications in sectors such as interior decoration, automotive, leisure and luxury goods.

To work on Varian®, DEMGY Atlantique's R&D department drew on its FLAXCOMP® expertise in processing thermoplastic composites based on plant fibers. DEMGY combines its knowledge of materials and its expertise in the manufacturing processes for plastic and composite parts to offer technologies that respect these plant fibers, in order to make the most of its natural resources, both in terms of aesthetics and mechanical strength.

DEMGY produced several demonstrators which were exhibited at JEC World 2024.





Demonstrators made by DEMGY Group, presented at JEC World 2024.

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Using rapid heating and cooling technology, DEMGY Atlantique has produced demonstrators:

- of all available Varian<sup>®</sup> colors;
- with variations in textile appearance: more or less textured, smooth, textured or textile feel...

Tests to obtain totally watertight demonstrators have also been successfully carried out. These parts could in future be used in the automotive market for vehicle interiors.

(1) Flaxcomp® was born of a partnership with the Terre de Lin cooperative to design the first 100% recyclable biocomposite based on flax fiber and corn starch that can be transformed on an industrial scale. Easy to work and shape, this new bio-composite can be transformed thanks to Flaxcomp® technological know-how, offering a wide choice of processing possibilities to produce parts for the aeronautical, automotive, marine, sports equipment and interior design sectors...

### **About DEMGY:**

Founded in 1947, DEMGY Group, an international technology group in innovative plastics processing, designs and manufactures high-performance plastic and composite solutions that are lighter than metal, to promote energy savings. DEMGY Group 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 ecodesign, which enables upstream management of the end-of-life of products and their recyclability.

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

In 2023, DEMGY Group generated sales of 100 million euros, 7% of which was invested in R&D and capital expenditure. DEMGY Group currently employs over 800 people.



DEMGY Group is a founding member and ambassador of the French Fab.



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 Normandie and DEMGY SPN are winners of the Aeronautics call for projects under the French Recovery Plan.



### About Culture iN:

CULTURE iN is an industrial and creative company founded in 2014, publisher of biosourced composite materials. Its approach focuses on well-being: sensoriality, respect for health and the environment.

After 3 years of Research & Development, CULTURE iN has developed an innovative and durable composite material for interior design, and is continuing its developments to meet the specific needs of industrial sectors: automotive, aeronautics, luxury goods, sports and leisure...

With Varian® technology, CULTURE iN aims to position itself as a key player in the future of composite and biosourced materials.



CULTURE iN 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.

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