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PRESS RELEASE

FORMCORE PEER Chair made with AIREX® T10 sustainable core material nominated JEC Innovation Award Finalist 2020



The prototype PEER Chair Basic shortlisted for the [JEC Innovation Awards 2020](#), is the first 1:1 realization based on the seating furniture Edition PEER, which includes five furniture types made with the FORMCORE technology and AIREX® T10 PET sustainable core material. Valentine Troi, FORMCORE Project Lead, designed the Chair to prove the FORMCORE concept flexibility on the furniture scale.

The FORMCORE technology is based on core material plates with a unique slit pattern concept, that enables the production of free-formed sandwich elements without using molds or tools, so the output of single items or a small number of pieces gets economically feasible. Since a FORMCORE slit pattern has no "useless" slits, up to 20% of resin, and up to 12% weight can get saved up into the final composite sandwich element.

The scalable complexity of the production processes for composite elements, especially regarding FORMCORE technology, enables architects, designers, and manufacturers to produce with composite technology. The possibility for moldless production is primarily a benefit for architecture and design applications, where single items are often required.

Further value by working with composites in creative sectors like architecture and design, where FORMCORE is focused on, is the variability regarding the materials – the more

diverse the object or project requirements are, the more diverse the material availability for composing a sandwich is.

“Working with AIREX[®] PET-based core material brought my FORMCORE project to the next level. The unique balance between the high technical performance and material sustainable impact, enables me to design and construct not only high performing composite-oriented designs but also responsibly, PET is a sustainable material and potentially recyclable or reused” said Valentine Troi, FORMOCRE Project Lead

“We are very proud to be nominated JEC Innovation Award Finalist with FORMCORE. At 3A Composites we welcome innovations in favor of creating sustainable solutions in the industry. FORMCORE and AIREX[®] T10 can serve the architecture segment in the most efficient and environmentally-friendly way. We are looking forward to bringing sustainable innovation to the architecture community” said Eric Gauthier, CEO of 3A Composites Core Materials

The FORMCORE project idea was born during an informal discussion at 3A Composites Core Materials stand at JEC Paris 2016; Valentine Troi, the former CEO of superTEX composite components, discussed the challenges of pushing lightweight composite material into the high-end architecture segment. Today's world-leading architecture projects are free-formed. The conclusion was the primary concern to the little use of composite elements in free-formed architecture projects was the exponential costs driven by the massive need of molds – for every façade panel one mold, every façade panel has a different geometry.

Valentine Troi left her company superTEX composites in 2017 to found her development company troi.composite components and lined up the FORMCORE project together with several corporate partners: Q-Biq, Format Engineers and i.sd_structure and design (Department of Design at the University of Innsbruck).

The result of the first development phase was the FORMCORE patent application in 2018 and a first façade prototype mounted on the "Neuschneewolke" in Lüsens/Tyrol. The content and goals of the second development phase were defined in close collaboration between troi.composite components, 3A Composites Core Materials and Gaugler & Lutz oHG, these comprised the development of marketable FORMCORE production processes for different scales and applications and launching the innovation at the JEC World 2020, PEER Chair series, which is now nominated JEC Innovation Award Finalist 2020.

The JEC Innovation Award 2020 voting process is now open to select the general public favorite innovations: <http://innovationawards.jec-world.events>

Sustainable innovation, high quality, global reach, ensured availability, and close collaboration with customers drive 3A Composites to its success of becoming the leading Core Materials manufacturer.

The FORMCORE PEER Chair will be on display at JEC World, Parc d'Expositions de Villepinte, Paris at 3A Composites Core Materials Stand #G27 / Hall 5 and JEC World Sport & Lifestyle Planet – Tues. 3rd to Thurs. 5th March: <http://www.jecomposites.com/>

About AIREX® T10

AIREX® T10 is a closed-cell, thermoplastic and recyclable polymer foam. AIREX® T10 is a foam core material with a very homogeneous cell structure, high mechanical properties and an outstanding price / performance ratio. It has extraordinary resistance to fatigue, is chemically stable and has negligible water absorption. It is thermally stable during high temperature processing and post curing.

AIREX® T10 foam core is designed for easy use with all resin systems and processing technologies. AIREX® T10 composite core material is ideally suited for high volume applications of lightweight sandwich structures subjected to static and dynamic loads and/or exposed to elevated temperatures during manufacturing:

<https://www.3acorematerials.com/en/products/airex-foam/airex-t10-pet-foam>

About troi. composite components

Founded in 2016 by the material technologist and architect Valentine Troi.

As a material technologist, Valentine Troi has been working for ten years on manufacturing methods for free-form fiber composite components that do not require expensive mold and tool construction. The technology variants for implementation are varied and were experimentally developed and tested on different scales as part of a research project.

As an architect, a material-conforming implementation of free-form designs is essential. Their material competence extends beyond the fiber composite, and combinations with other lightweight materials such as metal, wood, and textiles complete their range.

troi.composite components focuses on the splineTEX and FORMCORE technology development and commercialization for architecture and design as well as industrial applications.

About 3A Composites Core Materials

3A Composites Core Materials is a global organizational unit within the 3A Composites Group, a part of Schweiter Technologies (SIX Swiss Exchange: SWTQ), with operations in Europe, the Americas, China and Papua New Guinea.

Stronger, lighter, greener future

3A Composites Core Materials is a global leader with the broadest portfolio of high-performing and sustainable core materials with main focus on PET foam and balsa wood. We are the pioneers in sandwich technology with more than 75 years of experience.

Since the very beginning our focus has been developing strong and solid, yet lightweight core materials, which allow manufacturing more durable, sustainable and energy-efficient end products for our customers. Our products have also the purpose: to create a stronger, lighter and greener future.

We have innovation deeply planted in our core

Each of our products is a result of profound expertise and advanced thinking of our engineers, working in partnership with our customers and leading experts and research institutes. We shape the industry trends and keep our offer at the cutting edge of technology.

We want to make the industry greener

Our commitment to sustainability is deeply ingrained in all aspects of our business, from developing sustainable products to protecting the natural environment and cultural heritage of the communities we work in.

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