

Lantor BV expands internal material testing capabilities to include autoclave and press-forming simulations.

Lantor is the expert when it comes to textile solutions in your FRP product. Whether you need to lightweight a monolithic shell part, or to produce products fast and with optimal surface quality, Lantor has the solution for you!

With our unique microsphere technology, Lantor is able to provide thin core solutions for optimal weight and superior surface quality. Brands such as Coremat®, Soric® and Finishmat® have been household names in the industry for decades and continue to be at the cutting edge of technology. With our latest additions, Skincore® and Teccore® Lantor makes a next step into creating smarter composites.



Picture 1: Application engineer Ward Steijn showing the first result of a thermopress cycle with snap-cure carbon fibre prepreg and Teccore TG180. Cycle time 7 minutes.

Where Coremat® is the go-to thin flexible core for hand laminating and Soric® for RTM-L and vacuum infusion, Teccore® is filling a gap in the need to further light-weight fibre reinforced bodywork for vehicles. With the development of Teccore®, Lantor offers a core that reduces the carbon content of thin walled body panels, maintains a class A surface finish and can be processed with heat and pressure intensive processes like autoclave and thermopressing

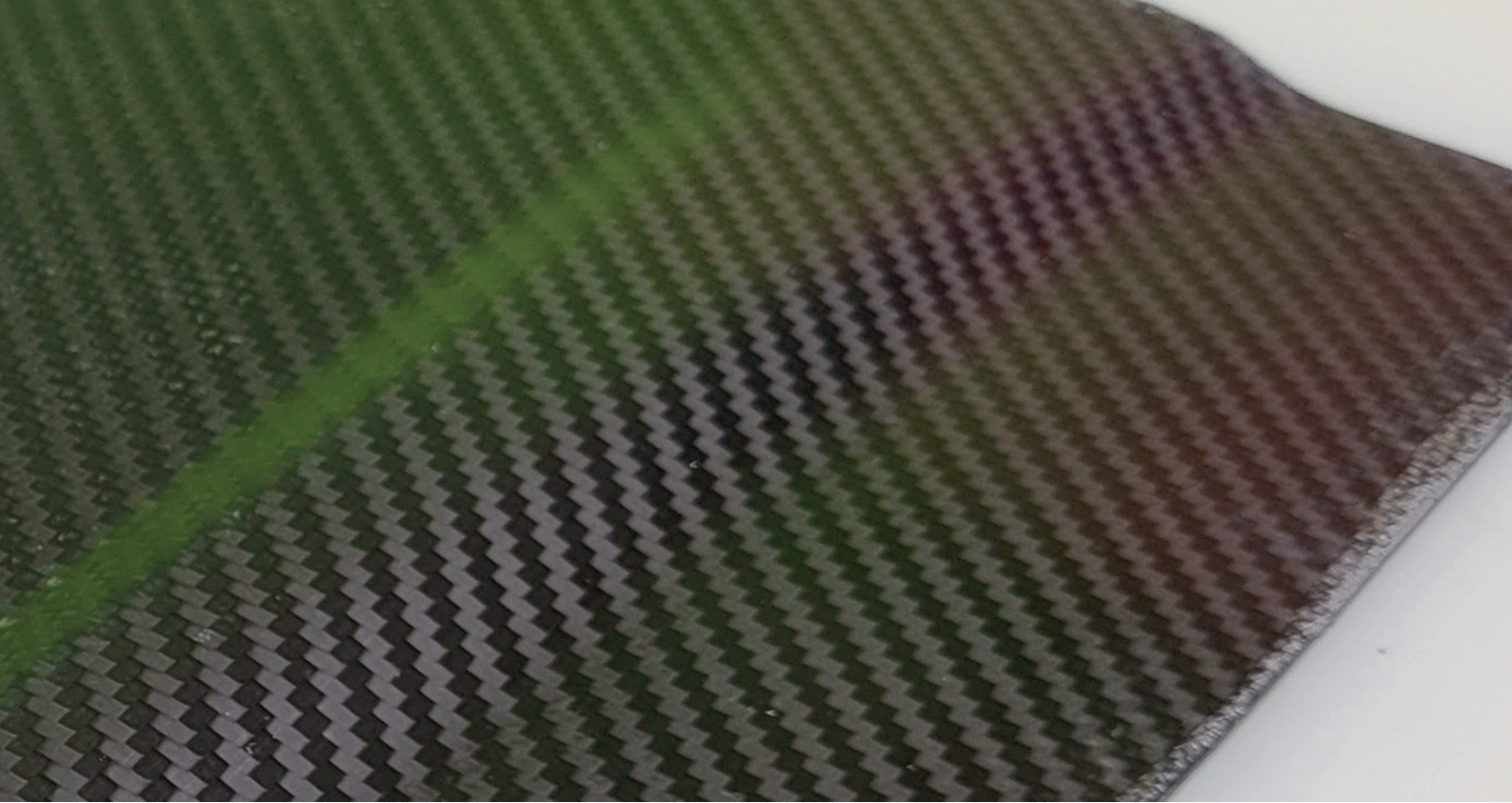
Since the start of the Teccore program, Lantor is working closely with industry partners, OEM's, Tier 1 and Tier 2 suppliers to test and validate Teccore with successful implementation in production vehicles as a result. This gives our partners a taste for more and a need for faster development and testing.

For this reason Lantor has worked together with its partner Lanulfi Moulds SRL to create a custom press mould that works with the existing Fontijne laboratory press at Lantor.

Lanulfi is working in the automotive and other industrial sectors since many years as supplier of medium and large sized moulds in aluminum and steel (up to 40 tons) and special equipment for different technologies : thermosetting compression (SMC and Carbon SMC), BMC, thermoplastic compression (LFT, DLFT, GMT), carbon fiber compression, PUR injection (RIM, PDCPD).

Lanulfi is organized to offer to its customers a complete service with the possibility to handle a full project including the co-design, the construction of the moulds and all the jigs necessary for the production like cooling jigs, cutting jigs, dimensional jigs, etc.

Thanks to their know-how and problems solving capacity, Lanulfi advised, designed and built the press mould we needed to exact specifications and with a very limited workspace. The mould allows Lantor to create double curved (locally and globally) >>



Picture 2: close-up of the carbon fibre detail on the sample from picture 1. No post processing is applied to the surface of this sample.

panels in thicknesses starting at 1 mm up to 10 mm whilst the programmable press provides exact pressures and temperatures to match the production process being simulated. Vacuum can be applied to the mould when required for example to simulate autoclave conditions.

Edze Visscher, research and development manager at Lantor BV says: "It is Lantor's mission to sell products with unique properties and the highest added value for our customers. To be successful in this task it is essential to be able to do in-house application development and understand the behaviour of materials in customer processes. We are very happy with this new technology in our laboratory, which gives us the opportunity to simulate press-forming and autoclave processes and develop and optimize unrivalled product concepts with our unique materials."

To date Lantor produced laminates using Lantor Teccore®, Pre-pregged Lantor Teccore® and Carbon-fibre prepreg in Autoclave conditions, Thermoset prepreg pressing and Thermoplastic prepreg pressing. Demonstrators and process examples will be available for review to interested customers and development partners during the upcoming JEC World 2022, 3-5 May in Paris. You are welcome at booth J74 in Hall 6. For an appointment please contact Lantor at composites@lantor.com.



Picture 3: Lanulfi mould in the Fontijne press ready to be heated and put under pressure. The blue vacuum line is also attached.