



## Lantor products for the production of Nacelle covers

### Introduction

In a combined effort Lantor Composites, Gazechim Spain and CMC (Cortiplas group) have successfully re-engineered the laminate structure for an Alstom Ecotecnia 1,5 MW Nacelle cover from HLU to a Vacuum infusion process.

### Original process of nacelle cover production:

Originally the Nacelle covers for Ecotecnia were manufactured in the open mould HLU process. Since the nacelle covers are mainly engineered on stiffness it is very important to have a controlled thickness of the main laminate. This is realized by introducing Lantor Coremat in the laminate build-up. That way the main laminate can be build fast and stiff without the weight penalty that a single skin laminate will have.

### Infusion process:

The changing environmental regulations and the higher demand for nacelle cover production ask for a more advanced production process of the nacelles. A very suitable production method for this purpose is the vacuum infusion process.

This process however has other demands on the materials used. Therefore Lantor composites in cooperation with Gazechim Spain have introduced Soric at CMC for the production of nacelle covers in infusion. Soric helps to maintain thickness that is highly needed in a laminate engineered on stiffness. An additional advantage of Soric is that it also provides the resin transport needed for a proper wet-out of the total laminate.

Important within this transition was that the mechanical properties of the laminate build up for a proper functioning of the nacelle cover remained intact.

Lantors calculation service has helped CMC with the determination of the right laminate build up to ensure that with the infused nacelle covers Alstom Ecotecnia would have an equally good or even better alternative for the open mould produced nacelle covers.

### Conclusion

A smooth transition from an open mould hand lamination to a vacuum infused nacelle cover has been realized with the products of Lantor Composites. In a combined effort CMC, Gazechim Spain and Lantor Composites a customer oriented solution was realized..



Lantor products in the Alstom Ecotecnia 1,5 MW turbine

### Other turbine builders that use Lantor products as well:

Clipper, DeWind (US), Acciona (Spain), REpower (Germany), Envision, Shanghai Electric, Mingyang Electric, SANY (China)

Do you want to try Lantor products yourself and use the expertise of the Lantor Calculation Service? Please contact:

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