

Soric TF Enabling Automotive

carbon fibers this part would be very light but also be very costly to produce. To optimize the cost without compromising the flexural properties to much a thin sandwich construction was suggested.

Solution

To reduce the cost of this part without jeopardizing the weight properties a sandwich laminate with Lantor Soric TF is used. The Soric TF acts as a thin and lightweight core. It replaces some of the carbon fibers in the neutral axis of the laminate. That way it reduces the total cost of the part, keeping the flexural stiffness as it needs to be.

Customer

Benteler-SGL is a German Tier-1 supplier to the automotive industry. They are specialized in the production of lightweight carbon parts for both structural and esthetic car parts.

Challenge

In automotive light weight and cost reduction are priority drivers. The Audi R8 GT super sports car has a special carbon fiber side blade. When made completely out of



Result

The use of Soric TF in this Audi R8 GT carbon part complies to both of the major drivers in the automotive industry, cost reduction and light weight engineering.



Customer

SGL Benteler (Germany)

Soric TF is used for

Extra stiffness
Weight reduction

Production process

Prepreg, autoclave

Coremat®

Coremat is a polyester nonwoven that contains microspheres. Coremat can be used as a thin core (bulker mat) or as a print blocker (liner) in fibre reinforced laminates, manufactured in hand lay-up or spray processes.

Coremat Xi is the world standard for bulker mats. The Coremat resin consumption is about 600 grams per mm thickness. It contains a blue colour change resin indicator. Coremat Xi is very soft and pliable when impregnated and is therefore very suitable for complex shapes.

Coremat Xi is available in thicknesses of 1, 2, 3, 4 and 5 mm.

Coremat XM is the premium core product for hand lay-up processes and has a low resin uptake: 500 grams of resin per mm thickness. It is therefore suitable for weight critical applications. The hexagonal cell pattern results in a very consistent thickness in the product. XM has a high wet tensile strength and is therefore often used in applications where mats are pre-impregnated outside the mould.

Coremat XM is available in thicknesses of 2, 3, 4 and 10 mm.

Soric®

Soric is a polyester nonwoven material with a compression resistant cell structure. Soric can be used in closed mould processes like vacuum infusion, RTM light, RTM etc. Because of the unique properties and characteristics, Lantor Soric can be used as a thin core, as an interlaminar flow medium and as print blocker (Soric TF).

Soric SF is the general purpose grade, balancing resin flow and surface quality. Soric SF is therefore especially suitable for thinner laminates.

Soric SF is available in thicknesses of 2 and 3 mm.

Soric XF maximises weight reduction in structural core applications. Soric XF offers the fastest resin flow for the lowest resin consumption and is therefore ideal for thicker laminates.

Soric XF is available in thicknesses of 2, 3, 4, 5 and 6 mm.

Soric TF is the ideal product for the most demanding cosmetic and surface finish requirements. Soric TF can be used as a core and also as a print blocker for infused laminates.

Soric TF is available in thicknesses of 1.5, 2 and 3 mm.

Soric LRC is a special grade for **Low Resin Consumption** and is therefore suitable in weight critical laminates.

Soric LRC is available in thicknesses of 1.5, 2 and 3 mm.

Finishmat®

Finishmat is the Lantor range of sufacing veils for the composite industry. Finishmat products are used to improve cosmetics, to reduce the abrasion of moulds or to enhance the chemical resistant.

Finishmat D7760/80 is a needled felt made of polyacrylonitrile fibres. It prevents fibre print through from glass fibres and by creating a resin rich layer it can also help prevent water osmosis.

Finishmat D77 is available as 60 g/m² (D7760) and 80 g/m² (D7780).

Finishmat 6691 SL / LL is a chemical bond, polyester tissue. 6691 veils are used in filament winding and pultrusion processes. They create a smooth, resin rich layer, which serves as a chemical barrier and creates a smooth surface finish.

6691 SL weighs 20 g/m² and 6691 LL weighs 40 g/m².

Contact us

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