## Lantor Composites<sup>®</sup>

## Leadership through innovation

Lantor BV, based in Veenendaal, The Netherlands, focuses on the development, manufacturing and global marketing of high added value nonwovens for applications in the Composites, Cable, Construction and Special Products industries.

The Lantor Composites division offers a comprehensive range of nonwovens solutions for fibre reinforced plastics industry. In close cooperation with the world's leading end-users and institutes, successive generations of Lantor Mat products have been developed for specific applications in the marine, transportation, construction, leisure, sanitary and aerospace industries.

Lantor offers for his customers a special dedicated solution driven support and calculation service.

This application calculation is a comparison between a current laminate build-up and a Lantor laminate build-up in weight, cost, dimensional & mechanical properties in order to find the optimal solution for your application.

#### Fields of application :

- Marine
- Transportation
- Wind Energy
- Mass
- Leisure
- Industrial

#### **Lantor Calculation Services**



(boats and yachts; hulls, decks, wet cells)

(nacelle covers, housing, blades)

(cars, trailers, trucks, RV's; parts and panels)

(trains, light rail, buses; interior and exterior)

(kayaks, surfboards, pools, tubs and showers)

(cladding panels, vans, containers, tanks)



### **Product range Lantor Composites®**

Lantor Coremat<sup>®</sup>

### Lantor Soric<sup>®</sup>

t any time without notice.

Lantor **BV** 





## Lantor Composites®



### Lantor Finishmat<sup>®</sup>

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Nonwoven solutions for the composites industry



## Lantor Coremat<sup>®</sup>

### The nonwoven core and liner for hand lay-up and spray-up processes

### Core material and infusion medium in one

Coremat is a polyester nonwoven that contains microspheres and is used as at thin core (bulker mat) or print blocker (liner) in fibre reinforced laminates, manufactured in Hand Lay-Up or Spray-Up processes. Coremat should always be fully impregnated with resin. The microspheres in Coremat prevent excessive resin up-take. The most important reasons to use Coremat are:

- Weight saving
- **Resin and glass saving**
- Increase stiffness
- Fast thickness build-up
- Excellent surface finish



**Coremat Xi** Coremat Xi is the world standard for bulker mats. The Coremat resin consumption is about 600 grams per mm thickness. It contains a resin indicator which changes colour to show that resin has been applied to the Coremat.

> Coremat Xi is very soft and pliable when it is wet and therefore very suitable for complex shapes.

#### Key properties Xi:

- Resin indicator
- Excellent impregnation
- High drapeability in resin



#### Coremat XM

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. Coremat XM has very good wet tensile strength properties; it is therefore often used in applications where mats are pre-wetted outside the mould.

Coremat XM has a low resin take up: 500 gram

Generally customers choose Coremat XM, because of its smoothness, ease of working, and resin savings. Key properties XM:

- Honeycomb structure for
- excellent drapeablity
- Extra resin saving High wet strength

**Coremat XM 10** Use Coremat XM 10 to replace plywood of rigid materials like foam or plastic cores. Coremat has good screw retention and does not have rot issues, unlike wood.

Soric is a polyester nonwoven material with a compression resistant hexagonal (XF, SF, LRC) or random dot-printed (TF) cell structure. These pressure-resistant cells, which are separated by channels, contain synthetic micro-spheres. The cells do not absorb resin and therefore limit the total resin up-take. Since these cells are pressure resistant, they create thickness in the laminate even when pressure is applied by vacuum bag. The channels facilitate resin flow and form a pattern of cured resin with good mechanical properties and excellent bonding to the outer skins.

Because of these unique properties and characteristics, Soric can be used as:

- Thin core (bulker), adding stiffness, while reducing weight
- Inter-laminar resin flow medium, eliminating the need for other (disposable) flow media Print blocker (liner), that meets the most demanding cosmetic and finish requirements.

Technical da	ita	Soric SF		Soric XF					Soric TF		
		SF 2	SF 3	XF 2	XF 3	XF 4	XF 5	XF 6	TF 1.5	TF 2	TF 3
Thickness	mm	2	3	2	3	4	5	6	1,5	2	3
Roll length	m	80	50	80	50	40	30	25	100	80	50
Roll width*	m	1,27	1,27	1,27	1,27	1,27	1,27	1,27	1,27	1,27	1,27
Resin uptake	kg/m²	١,0	1,3	١,0	1,4	1,9	2,4	2,8	0,8	1,0	1,4
Dry weight	g/m²	130	170	130	190	260	320	375	90	115	170
Densinty impregnated	kg/m³	700	600	600	600	600	600	600	700	700	700

#### Soric is available in four distinctive grades:

# for thinner laminates

### Technical data Coremat Xi 1.1 0.8 1.2 1.8 2.4 35 62 88 114 125 96 128 163 335 630 630 630 630 630 540 540 540 680

\* Special widths on request

Coremat XM



laminates.





## Lantor Soric<sup>®</sup>

## Lantor Finishmat<sup>®</sup>

The right protection

Finishmat is the Lantor range of surfacing veils for the composites industry. Finishmat is used to improve cosmetics, to create better chemical resistance or to reduce the abrasion of moulds. Each Finishmat product has its specific properties which makes it suitable for specific processes and applications.

Finishmat D7760 Finishmat D7760 is a needled felt made of polyacrylonitrile fibres. D7760 is applied in closed mould processes, like vacuum infusion, RTM light and RTM. It prevents fibre print through from glass fibres, and helps to prevent water osmos

#### Finishmat D7760 applications:

- automotive
- marine industrial

#### Finishmat 6691 range

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

#### Finishmat 6691 applications

- tanks (outside),
- pipes (outside),
- rods (outside),
- profiles (inside)

On request also available Finishmat 3C702: Black (carbonised) polyester veil, 60 gr/m<sup>2</sup> with conducting proper ties.

#### Technical data Finishmat

		D7760	6691SL	6691LL
Weight	g/m²	60	20	40
Thickness	mm	0,50*	0,30	0,45
Resin absorption	g/m²	400*	350	500
Binder		NO binder	Acrylate	Acrylate
Fibre		Polyacrylic	Polyester	Polyester
Elongation	%	100	>10	>10
Roll length	m	100	1000	1000
Width**		١,١	١,0	١,0

\* depending on process pressure \*\* special widths on request





### The finishing touch!

#### Lantor Soric SF Soric SF is the general purpo- Lantor Soric XF Soric XF maximises weight

se grade, balancing resin flow and surface quality. Soric SF is therefore especially suitable

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

### **Development product**



Lantor Soric LRC Soric LRC (Low Resin Consumption) is the latest grade in the Soric product line. Soric LRC has a resin uptake of about 350 g/m<sup>2</sup>/mm. Soric LRC is available for testing and evaluation in thicknesses of 2 mm and 3 mm.