



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.

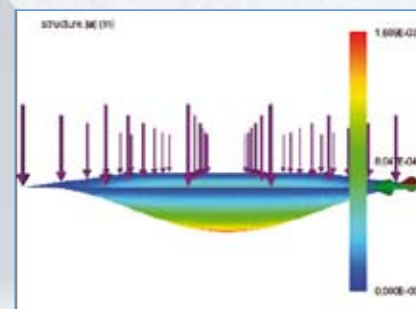
Lantor offers for his customers a special dedicated solution driven support and calculation service.

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.

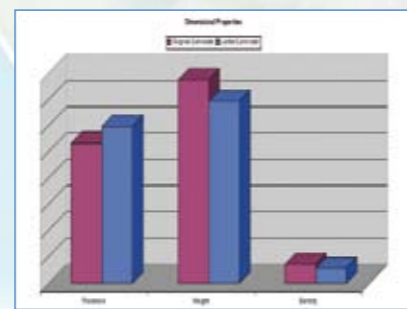
Fields of application :

- Marine (boats and yachts; hulls, decks, wet cells)
- Transportation (cars, trailers, trucks, RV's; parts and panels)
- Wind Energy (nacelle covers, housing, blades)
- Mass (trains, light rail, buses; interior and exterior)
- Leisure (kayaks, surfboards, pools, tubs and showers)
- Industrial (cladding panels, vans, containers, tanks)

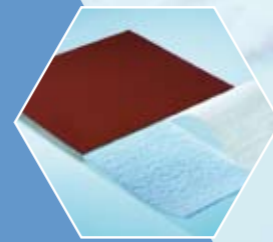
Lantor Calculation Services



Laminates Overview	
Material	Properties
Material 1	Properties 1
Material 2	Properties 2
Material 3	Properties 3



Product range Lantor Composites®



Lantor Coremat®



Lantor Soric®



Lantor Finishmat®

The information contained in this document has been compiled in good faith by Lantor B.V., but no representation or warranty is given as to the accuracy or completeness of the (technical) information provided. Lantor B.V. can not be held liable for any direct or indirect damages arising from (printing) errors or omissions in this information. Lantor B.V. reserves the right to make changes with respect to the information provided at any time without notice.

For more information:

Lantor BV

Verlaat 22, P.O. Box 45
3900 AA Veenendaal

The Netherlands

Or visit our website: www.lantor.nl

Tel.: +31 (0)318 - 537 111

Fax.: +31 (0)318 - 537 420

E-mail: lantorbv@lantor.nl

Soric®

Coremat®

Finishmat®

Nonwoven solutions for the composites industry

Lantor Coremat®

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

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

Technical data Coremat Xi

		Xi 1 mm	Xi 2 mm	Xi 3 mm	Xi 4 mm	Xi 5 mm	XM2	XM3	XM4	XM10
Thickness	mm	1,4	2	3	4	5	2	3	4	10
Roll length	m	130	80	50	40	30	80	50	40	15
Roll width*	m	1	1	1	1	1	1	1	1	1
Resin uptake	kg/m ²	0,8	1,2	1,8	2,4	3,0	1	1,5	2	6,5
Dry weight	g/m ²	35	62	88	114	125	96	128	163	335
Density impregnated	kg/m ³	630	630	630	630	630	540	540	540	680

* Special widths on request

Coremat XM

Coremat XM has a low resin take up: 500 gram 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.

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

- Honeycomb structure for excellent drapeability
- 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.



Coremat XM

		Xi 1 mm	Xi 2 mm	Xi 3 mm	Xi 4 mm	Xi 5 mm	XM2	XM3	XM4	XM10
Thickness	mm	1,4	2	3	4	5	2	3	4	10
Roll length	m	130	80	50	40	30	80	50	40	15
Roll width*	m	1	1	1	1	1	1	1	1	1
Resin uptake	kg/m ²	0,8	1,2	1,8	2,4	3,0	1	1,5	2	6,5
Dry weight	g/m ²	35	62	88	114	125	96	128	163	335
Density impregnated	kg/m ³	630	630	630	630	630	540	540	540	680

* Special widths on request

Lantor Soric®

Core material and infusion medium in one

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 data Soric SF

		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/m ²	1,0	1,3	1,0	1,4	1,9	2,4	2,8	0,8	1,0	1,4
Dry weight	g/m ²	130	170	130	190	260	320	375	90	115	170
Density impregnated	kg/m ³	700	600	600	600	600	600	600	700	700	700

Soric is available in four distinctive grades:

Lantor Soric SF

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



Lantor Soric XF

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.



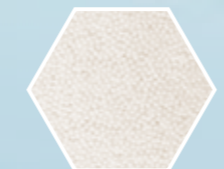
Development product Lantor Soric LRC

Soric LRC (Low Resin Consumption) is the latest grade in the Soric product line. Soric LRC has a resin uptake of about 350 g/m²/mm. Soric LRC is available for testing and evaluation in thicknesses of 2 mm and 3 mm.



Lantor Soric TF

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



Lantor Finishmat®

The finishing touch!

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 osmosis.



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/m² with conducting properties.

Technical data Finishmat

		D7760	6691SL	6691LL
Weight	g/m ²	60	20	40
Thickness	mm	0,50*	0,30	0,45
Resin absorption	g/m ²	400*	350	500
Binder		NO binder	Acrylate	Acrylate
Fibre		Polyacrylic	Polyester	Polyester
Elongation	%	100	>10	>10
Roll length	m	100	1000	1000
Width**	m	1,1	1,0	1,0

* depending on process pressure
** special widths on request