

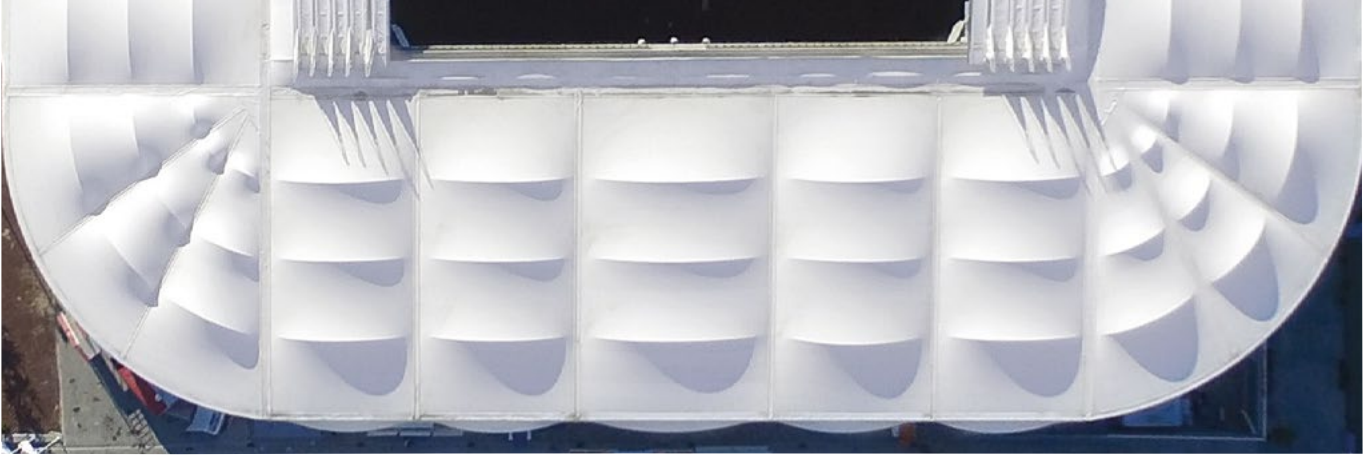
TEXTILES TO TRANSFORM



VALMEX[®] MEHATOP[®] N

PREMIUM TEXTILES FOR
PERMANENT STRUCTURES





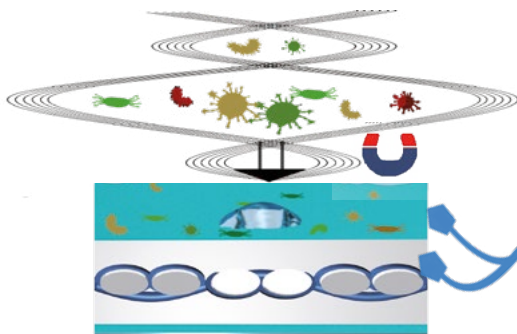
From MEGA to NANO

"The magic is in the details", as Theodor Fontane wrote in 1893. When producing membranes for mega projects like stadiums or shopping malls, it is vital for even the tiniest detail to be built to the highest quality standards. In order to guarantee optimal quality we took Mr. Fontane's saying to heart and enhanced the

nanostructure of our lacquering, the tiniest detail of our membranes.

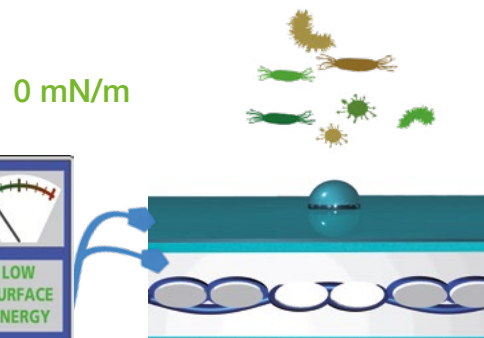
In difference to the phrase, however, the self-cleaning structure has little to do with magic: it's science, long hours of research and we've called it: MEHATOP® N

Non PVDF lacquered surface

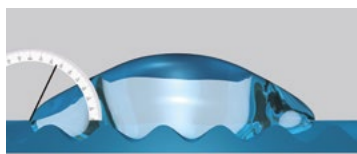


We adopted the principle of MEHATOP® N lacquering from natural role models. Many plants use their evolutionary, unique surface characteristics to protect their structure from environmental forces like fungi or algae growth. The surface of MEHATOP® N treated membranes is designed in a similar way.

MEHATOP® N lacquered surface



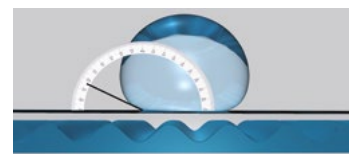
A special nanostructure minimises surface energy. The unique outcome of low surface energy is a significant reduction in the adhesive power of the surface when it comes to other molecules with higher surface energy such as water, dirt or dust.



Low Droplet Angle

The low adhesive power towards disperse and polar liquid molecules is the best demonstration of this effect. Materials with low surface energy do not attract a drop of liquid as strongly as materials with high surface energy. Therefore the droplet form

100°



High Droplet Angle

is more stable. This effect is called hydrophobia, and it is measured using the droplet angle test. A higher droplet angle indicates stronger hydrophobic capacity, which results in better self-cleaning capacity of the surface.

Advantage of MEHATOP® N lacquered surface:

- Conserves the appearance of your design
- Dirt and dust repellent
- Pollutant resistant
- Hydrophobic (pearl effect)
- High cleaning quality
- Saves on maintenance costs
- Enhanced colour stability

VALMEX®

Product No.

 FR 700 Type I
7205 5256

 FR 900 Type II
7211 5256

 FR 1000 Type III
7269 5256

 FR 1400 Type IV
7270 5256

 FR 1600 Type V
7274 5256

	Measurement methods/ Classifications	Unit					
Material composition							
Finish	Nanopolymered fluorinated lacquer system on both sides, protected against microbial and fungal attack, UV-protected, Titaniumdioxide (TiO ₂) front side primer						
Base fabric	DIN ISO 2076		Polyester Plain Weave L1/1	Polyester Panama Weave P 2/2	Polyester Panama Weave P 2/2	Polyester Panama Weave P 3/3	Polyester Panama Weave P 3/4
Yarn count	DIN ISO 2060	dtex	1100	1100	1670	1670	2200
Low-wick yarn treatment	Methylenblue liquid method	mm	< 5	< 5	< 5	< 5	< 5
Total weight	EN ISO 2286-2	g/m ²	700	900	1050	1350	1550
Thickness		mm	approx. 0.6	approx. 0.8	approx. 0.9	approx. 1.2	approx. 1.3
Mechanical properties							
Tensile strength (warp/weft)	DIN EN ISO 1421/V1	N/50 mm	3000 / 3000	4300 / 4200	6000 / 5500	8000 / 7000	10000 / 9000
Tear strength (warp/weft)	DIN EN 17679	N	300 / 300	500 / 500	900 / 800	1200 / 1200	2000 / 2000
Adhesion	PA 09.03	N/cm	20	22	25	26	30
Crack resistance	DIN 53359 A	No. of folding cycles	100,000 T - no cracks	100,000 T - no cracks	100,000 T - no cracks	100,000 T - no cracks	100,000 T - no cracks
Physical properties							
Light fastness	DIN EN ISO 105 B02		> 6	> 6	> 6	> 6	> 6
Solar transmission	ASHRAE 74 1988 / ISO EN 410	%	approx. 9 / 9	approx. 7 / 7	approx. 6 / 6	approx. 5 / 5	approx. 3 / 3
Solar reflection	ASHRAE 74 1988 / ISO EN 410	%	approx. 83 / 81	approx. 85 / 82	approx. 84 / 82	approx. 86 / 84	approx. 86 / 84
Solar absorption	ASHRAE 74 1988 / ISO EN 410	%	approx. 8 / 10	approx. 8 / 11	approx. 10 / 12	approx. 9 / 11	approx. 11 / 13
UV transmission	DIN EN 410	%	0	0	0	0	0
Shading coefficient Fc, single glazing (external/internal)	DIN EN 14501		approx. 0,1 / 0,3	approx. 0,1 / 0,3	approx. 0,1 / 0,3	approx. 0,1 / 0,3	approx. 0,1 / 0,3
Global thermal resistivity, R-value (vertical/horizontal)	DIN EN ISO 6946	[m ² K/W]	approx. 0,18 / 0,21	approx. 0,18 / 0,21	approx. 0,18 / 0,21	approx. 0,18 / 0,21	approx. 0,18 / 0,21
Global thermal transmittance, U-value, (vertical/horizontal)	DIN EN ISO 6946	[W/m ² K]	approx. 5,7 / 4,9	approx. 5,7 / 4,8	approx. 5,7 / 4,8	approx. 5,6 / 4,8	approx. 5,6 / 4,8
Cold resistance	DIN EN 1876-1	°C	-40	-40	-40	-40	-40
Heat resistance	PA 07.04	°C	+70	+70	+70	+70	+70
Fire resistance	Classification		DIN 4102-1:B1* EN 13501-1:B-s2-d0 UNI 9177:CL2 NFP 92507:M2 BS 7837 California T19 AS 1530 part 2 AS 1530 part 3 SIS 650082 NFPA 701 Method 2	DIN 4102-1:B1* EN 13501-1:B-s1-d0 UNI 9177:CL2 NFP 92507:M2* BS 7837 California T19 AS 1530 part 2 AS 1530 part 3 ASTM E 84 Class A NFPA 701 Method 2	DIN 4102-1:B1* EN 13501-1:B-s2-d0 UNI 9177:CL2 BS 7837 California T19 AS 1530 part 2 AS 1530 part 3 CAN ULC S109 NFPA 701 Test 2	DIN 4102-1:B1* EN 13501-1:B-s2-d0 UNI 9177:CL2 BS 7837 California T19 AS 1530 part 2 AS 1530 part 3 CAN ULC S109 NFPA 701 Test 2	DIN 4102-1:B1* EN 13501-1:C-s2-d0 UNI 9177:CL2 BS 7837 California T19 AS 1530 part 2 AS 1530 part 3 CAN ULC S109 NFPA 701 Test 2
Standard roll width		cm	250 cm on request: 300 cm				
Quality and environment	All products comply with European REACH directives and we are ISO 9001 certified.						

Solartechnical data/CIE white index measurements are based on colour 958

* Valid for special colour, details upon request

These indicated technical data are based on average results. Due to production procedures slight deviations can occur. All technical data are in accordance with the present standard of knowledge and give product information without legal binding. All data apply to new products. All values are generated according to standards at established laboratories. Results may vary if executed at different laboratories or due to different standard interpretations. Applications suggested here do not release the customer from testing material for its intended application.





Our new VALMEX® MEHATOP® N membranes were developed on the strength of more than 60 years of experience with fabrics. Dust, dirt and other environmental influences cannot attach themselves to our newly developed VALMEX® MEHATOP® N lacquer, and are rinsed off with ease - or by the next rain.



MEHATOP® N

... accepts the challenges of:

- Areas with high humidity
- High polluted cities
- Sophisticated designs
- Demanding builder-owners
- Stable appearance



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