

Sunscreen® range



Sunscreen® Satiné 5500

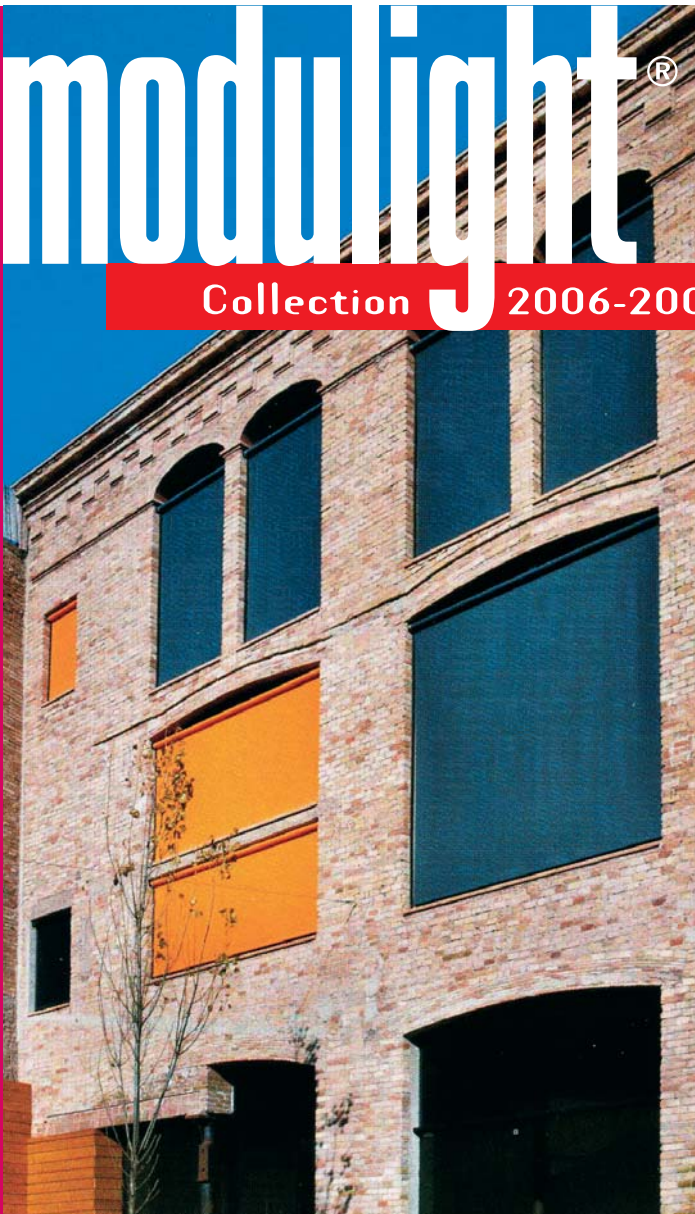
**Fire retardant coated
fibreglass yarns fabrics**

Solar protection:
All types of internal blinds

Tensile structures:
All types of shapes and volumes

modulight®

Collection 2006-2009



external and
internal



printable



Widths 160 190 220 250 285 cm

> www.sunscreen-mermet.com

Properties



MERMET

Product features

- **New**
all colours available in 5 widths
up to 285 cm for large panels
with no seams
- Excellent heat protection:
up to 97% of solar radiation
reflected by external blinds
- Twill weave for excellent
glare control
- **Excellent mechanical
resistance** for tensile structures
- Printable: **excellent
communication medium**



Sunscreen® Satiné 5500

Projection shades

Garden shades

Roller blinds

Velums

Roof light blinds

Roman shades

Decorative panels

Skylight blinds



External blinds

External and internal blinds

Internal blinds

modulight®

Sunscreen® Satiné 5500 Pinpoint the performance factors

1 rapid selection 40



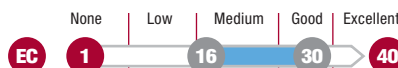
NL natural light

Level of incoming natural light



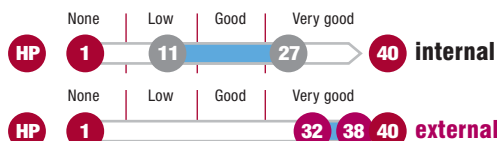
EC eye comfort

Glare control



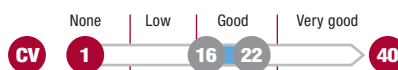
HP heat protection

Protection against the heat gain from sunlight



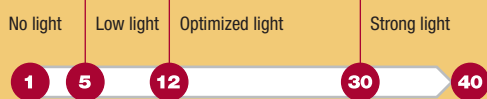
CV contrast vision

Quality of outward visibility



4 comfort factors to choose the right fabric for the function and colour required and ensure the success of your solar protection.

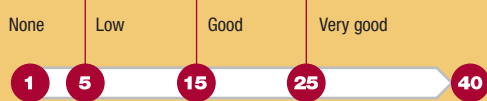
NL natural light



EC eye comfort



HP heat protection



CV contrast vision



NL Level of incoming natural light

To obtain the best out of natural lighting, select in the **12 to 30** factor range.

To block out the light completely, select from the **1 to 5** range.

EC Glare control

For adequate glare control, do not select below factor **22**.

HP Protection against the heat gain from sunlight

To be protected from the heat, select in the **20 to 40** factor range.

CV Quality of outward visibility

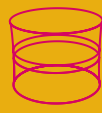
To make the most of visibility and provide true transparency, start at factor **15**. To ensure privacy, select a factor lower than **5**.

The Modulight® Rapid' Selection system, including the 4 comfort factors and their scale of values, is the property of Mermet S.A. It refers solely to solar protection fabric in the Mermet Modulight® collection. Any whole or partial reproduction is forbidden.

Flat structures

Shaped structures

Volume structures



Tensile structures

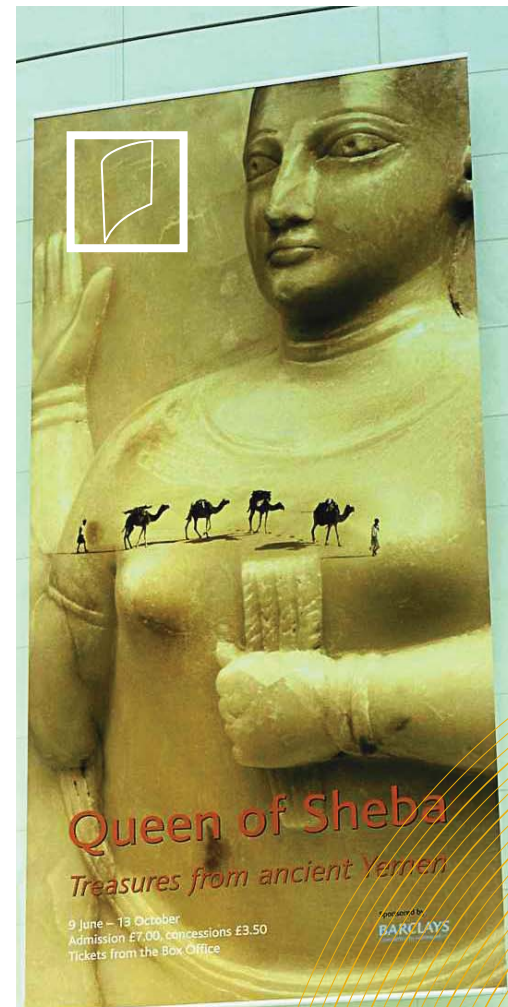
Sunscreen® Satiné 5500

The energy saving league winner

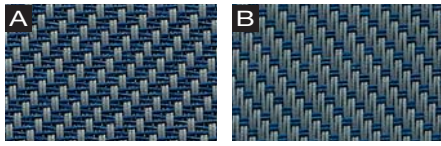
Sunscreen® Satiné 5500

is the perfect cost-saving comfort solution for all seasons.

- **Cheaper thermal comfort:** the fabric really comes into its own when it is used for **external blinds**. It **stops the sun's rays before they hit the glazing** and its open mesh has powerful ventilation properties which prevent heat from accumulating between the glazing and the blind. Depending on the colour, the fabric when used for external blinds will reflect up to 97% of solar radiation. Sunscreen® Satiné 5500 can help cut air-conditioning costs in premises by over 60%. Advantages: **energy saving** and **lower greenhouse gas emissions**.
- **Filtered natural light and glare control:** regardless of the position of the sun, the season or the direction the building faces, Sunscreen® Satiné 5500's **twill weave reflects the light rays**. It **controls glare** and ensures visual comfort at all times of the day, preventing disturbing reflections on monitor screens. Glare is best controlled by dark colours.
- **True transparency:** the secret lies in the **uniform coating and regular weave** of the fibreglass yarns, **offering a clear view to the outside**.
- **Strength and peace of mind guaranteed:** made of coated fibreglass yarns, Sunscreen® Satiné 5500 has **excellent mechanical resistance** allowing it to be tensioned, and **perfect dimensional stability** in panels of **all sizes**. It is unaffected by heat and cold and is weather-resistant. This fabric is **rot-proof** and IMO-certified (EC 0062 standard) for use in marine conditions. Labeled **Oekotex Standard 100**, it contains **no chemicals harmful for the health** and safety of users. Moreover, Sunscreen® Satiné 5500 is **non-flammable** and easy to maintain.
- **Communication media:** Sunscreen® Satiné 5500 is **printable**; its textile appearance offers **excellent legibility** and enhances colours. Printed fabrics keep their transparency and are perfectly smooth.

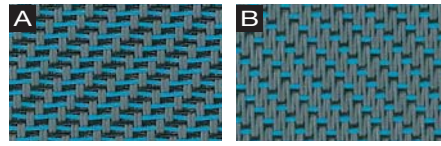


0140 Grey Marine



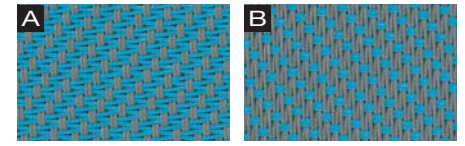
Side A	11	29	15 38	21
Side B	11	29	15 38	21

M01 010330 Grey Turquoise Charcoal



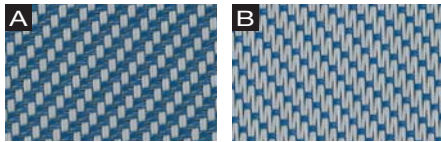
Side A	10	30	13 38	21
Side B	10	30	13 38	21

0103 Grey Turquoise



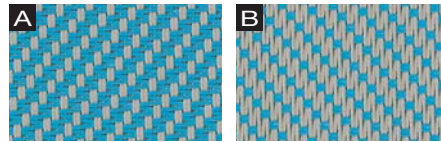
Side A	12	28	17 38	18
Side B	12	28	15 37	18

0740 Pearl Marine



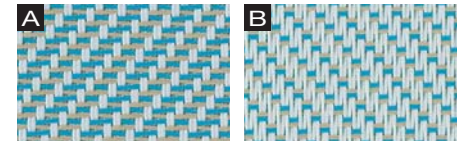
Side A	15	25	18 36	20
Side B	15	25	17 36	20

0703 Pearl Turquoise



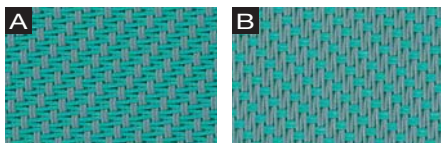
Side A	13	27	19 36	17
Side B	13	27	19 37	17

M02 020310 White Turquoise Sable



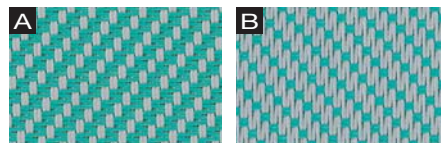
Side A	18	22	22 34	17
Side B	18	22	24 35	17

0150 Grey Green



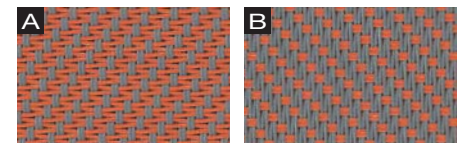
Side A	13	27	15 38	19
Side B	13	27	14 37	19

0750 Pearl Green



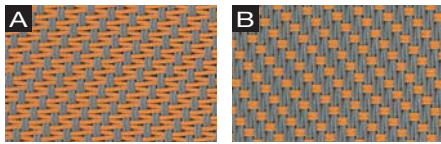
Side A	13	27	18 37	18
Side B	13	27	19 37	18

0109 Grey Mandarin



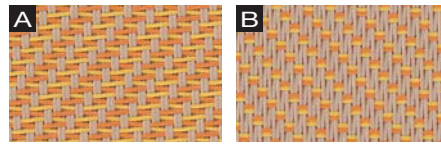
Side A	13	27	17 37	19
Side B	13	27	16 37	19

0108 Grey Orange



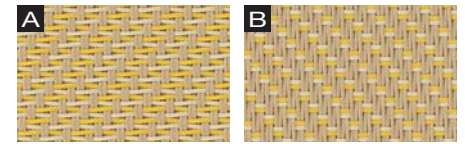
Side A	13	27	18 38	19
Side B	13	27	16 37	19

M65 100508 Sable Canary Orange



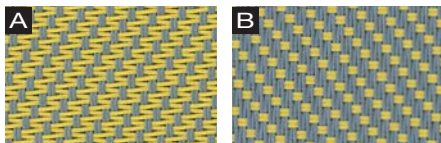
Side A	16	24	21 35	18
Side B	16	24	20 34	18

M64 100520 Sable Canary Linen



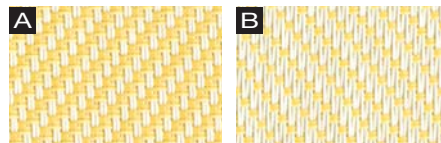
Side A	16	24	23 35	17
Side B	16	24	22 34	17

0105 Grey Canary



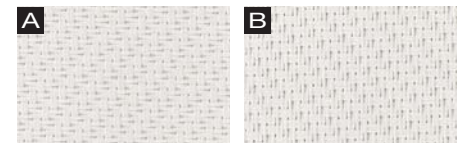
Side A	13	27	19 38	19
Side B	13	27	16 37	19

0205 White Canary



Side A	24	16	26 32	16
Side B	24	16	26 32	16

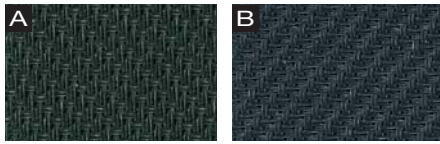
0202 White



Side A	24	16	27 32	16
Side B	24	16	27 32	16

1 rapid selection 40 NL EC HP CV

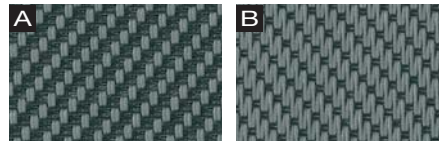
3030 Charcoal



NL EC HP CV

Side A	10	30	11 38	22
Side B	10	30	11 38	22

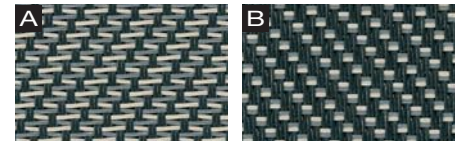
0130 Grey Charcoal



NL EC HP CV

Side A	10	30	11 38	20
Side B	10	30	12 38	20

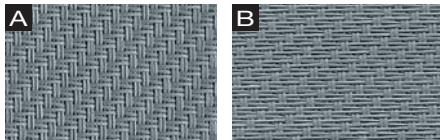
M38 300120 Charcoal Grey Linen



NL EC HP CV

Side A	13	27	15 38	20
Side B	13	27	12 37	20

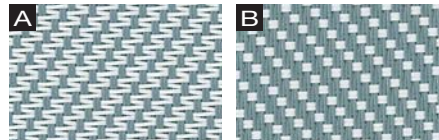
0101 Grey



NL EC HP CV

Side A	10	30	13 37	20
Side B	10	30	13 37	20

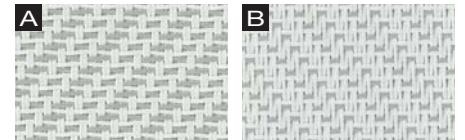
0102 Grey White



NL EC HP CV

Side A	14	26	19 37	18
Side B	14	26	16 36	18

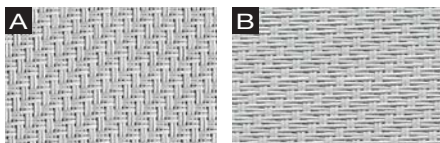
M36 020207 White White Pearl



NL EC HP CV

Side A	21	19	23 34	16
Side B	21	19	25 34	16

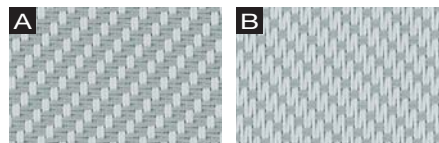
0707 Pearl



NL EC HP CV

Side A	16	24	19 36	18
Side B	16	24	19 36	18

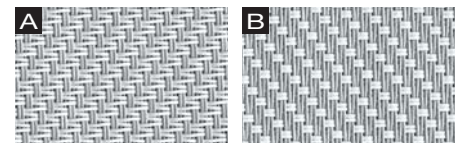
0207 White Pearl



NL EC HP CV

Side A	20	20	21 37	17
Side B	20	20	23 36	17

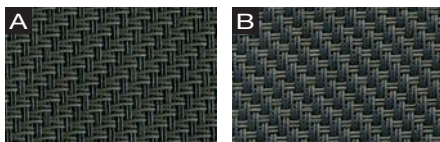
0702 Pearl White



NL EC HP CV

Side A	20	20	23 37	17
Side B	20	20	21 36	17

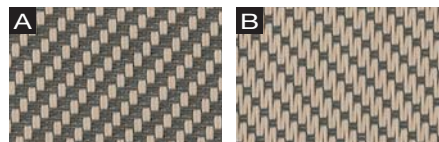
3006 Charcoal Bronze



NL EC HP CV

Side A	11	29	11 38	22
Side B	11	29	11 38	22

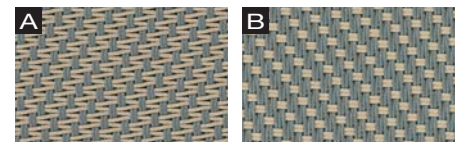
1006 Sable Bronze



NL EC HP CV

Side A	12	28	15 37	19
Side B	12	28	17 38	19

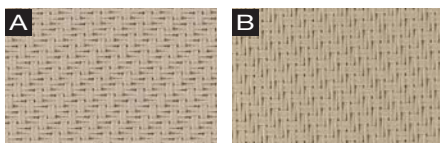
0110 Grey Sable



NL EC HP CV

Side A	12	28	17 37	19
Side B	12	28	15 37	19

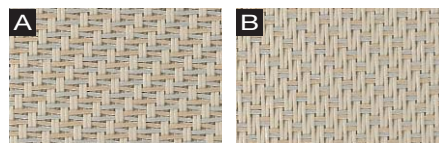
1010 Sable



NL EC HP CV

Side A	14	26	20 35	18
Side B	14	26	20 35	18

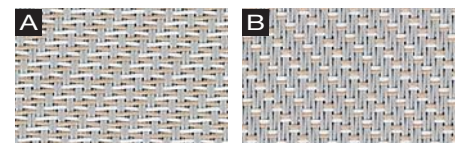
M37 200710 Linen Pearl Sable



NL EC HP CV

Side A	21	19	21 34	17
Side B	21	19	23 33	17

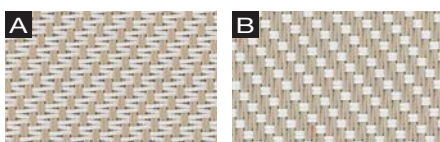
M45 070210 Pearl White Sable



NL EC HP CV

Side A	16	24	22 36	16
Side B	16	24	21 35	16

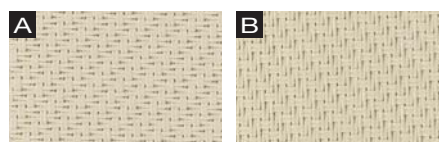
1002 Sable White



NL EC HP CV

Side A	19	21	22 35	16
Side B	19	21	21 34	16

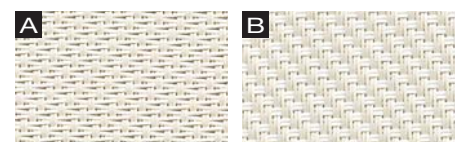
2020 Linen



NL EC HP CV

Side A	21	19	24 33	17
Side B	21	19	24 33	17

2002 Linen White



NL EC HP CV

Side A	22	18	26 33	17
Side B	22	18	26 33	17

Composition	42 % Fibreglass 58 % PVC	
Fire classification	M1 (F) B1 (DE) BS (GB) FR (USA) AS (AUS) B1 (CN)	NFP 92 503 DIN 4102-1 476 Pt 6 Class 0 part 6 and 7 NFPA 701 – 89 Small NFPA 701 – 89 Large NFPA 701 – 99 TM # 1 California US Title 19 AWTA Tested AS 1530 part 2 and 3 GB 50222-95
Openness factor	5 %	
UV screen	Up to 96 %	
Widths	160 – 190 – 220 – 250 – 285 cm 62 – 74 – 86.6 – 98.4 – 110"	
Pattern	Twill	
Yarn count	Warp	18 yarns/cm 46/inch ± 0,5 % ISO 7211/2
	Weft	14 yarns/cm 36/inch ± 0,5 %
Weight per m ²	535 g 15.8 oz/yd² ± 5 %	ISO 2286 - 2
Thickness	0,78 mm 30 mil ± 5 %	ISO 2286 - 3
Breaking strength	Warp	> 280 daN/5 cm > 371 lbs/in ISO 1421
	Weft	> 170 daN/5 cm > 268 lbs/in
Elongation to break point	Warp and weft	< 5 % ISO 1421
Tear resistance	Warp and weft	10=>18 daN Internal procedure
Resistance to fold	Warp and weft	≥ 20 daN/5 cm Internal procedure
Colour fastness to light	scale of 8	7/8 White not graded ISO 105 B02
Marking	Digital printing / Screen printing Transfer / Paint / Adhesive	
Making-up	Welding (thermal, high frequency, ultrasonic) or sewing	
Standard packaging	Rolls of 50 Im	

The data in this document is for information only and may not be considered as binding

Solar protection and light control indicators are laboratory-tested. The most relevant and widely-used factors are as follows:

➤ Thermal factors

Thermal factors relating to the fabric alone

Ts Solar transmittance:

this factor gives the proportion of solar energy transmitted through the fabric. A low percentage means the fabric performs well at reducing solar energy.

Rs Solar reflectance:

this factor gives the proportion of solar radiation reflected by the fabric. A high percentage means the fabric performs well at reflecting solar energy.

As Solar absorptance:

this factor gives the proportion of solar radiation absorbed by the fabric. A low percentage means the fabric absorbs little solar energy.

Solar radiation is always partially transmitted through, absorbed or reflected by the fabric. The sum of all 3 equals 100. Ts + Rs + As = 100 % of solar energy.



Thermal factors calculation using reference glazing and according to the position of the blind (indoor or outdoor)

Sc Shading coefficient (or Fc shading factor or z*): this factor shows how effective the fabric is at filtering the heat from solar radiation. It is expressed as a factor between 0 and 1. A low figure means high protection from heat flow.

Fs Solar factor or gtot factor*: the percentage of solar energy which actually penetrates into a room through the blind and glazing.

Fs = Sc x Fs of glazing or in European terminology: **gtot = Fc x g of glazing***
The solar factor of the glazing (Fs of glazing or g of glazing) is an indication given by plain glass manufacturers. This is often given randomly as **g of glazing = 0.75** as reference for standard double glazing.

> Optical factors

Tv Visible transmittance (or TL Light transmission): this factor gives the total percentage of light radiated through the fabric over a wavelength of 380 to 780nm (nanometers), called the visible spectrum (total illumination).

Of Openness factor (or Co Openness coefficient*): this factor gives, in brief, a percentage of holes in a fabric. In the European standard, it is considered as independent of the colour but, for fabrics with the same weave, it should be measured using the darkest colour in the range.

Tdif Diffuse transmission factor*: correlation of the two factors above:

$$Tdif = Tv - Co$$

The diffuse part of total light transmission is indicated as Tvdif for the aspects of glare and shape recognition (visual contact to the outside/night privacy). However, for natural light control, it is indicated as Tvdifh. This is used to ascertain a fabric's light diffusion capacity. Panel becomes a source of light if the sun shines directly on it. The light intensity, or "luminance", emitted by a fabric can also be measured in candelas/m² (Cd/m²).

Tuv Ultraviolet transmittance factor:

this factor gives the percentage of ultraviolet light radiated through the fabric over a wavelength of 280 to 380 nm (nanometers). UV radiation accelerates natural ageing. All means of solar protection ensure a certain amount of protection from UV rays.

* European terminology

> External



Dark colour Charcoal 3030	Light colour White 0202
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Visual transmission (Tv or TL) Tv = 6 %	Tv = 19 %
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Thermal transmission Total solar factor (gtot or fs) gtot = 11 %	gtot = 16 %
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> Internal



Dark colour Charcoal 3030	Light colour White 0202
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Visual transmission (Tv or TL) Tv = 6 %	Tv = 19 %
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Thermal transmission Total solar factor (gtot or fs) gtot = 38 %	gtot = 27 %
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Thermal and optical factors in the **European standard EN 14501 new!**

Openness factor (Co) OF 5%			Thermal factors						Optical factors			
			Ts	Fabric		Fabric + glazing				Tv	Tvndif	Tvdifh*
				Rs	As	gv=0,59 gtot external blind	gv=0,32 gtot internal blind	gv=0,59 gtot external blind	gv=0,32 gtot internal blind			
Colours												
0202 White			25	58	17	0,17	0,12	0,38	0,26	25	19	
2020 Linen			21	48	31	0,15	0,10	0,41	0,27	19	16	
0205	Side A	dark	18	56	26	0,13	0,09	0,39	0,26	17	13	
White Canary	B		18	58	24							
0207	Side A	dark	16	45	39	0,13	0,09	0,42	0,27	14	10	
White Pearl	B		16	52	32							
1002	Side A		12	47	41	0,11	0,07	0,41	0,26	10	8	
Sable White	B	dark	12	44	44							
0102	Side A		10	35	55	0,09	0,07	0,45	0,27	9	4	
Grey White	B	dark	10	26	64							
1010 Sable			9	37	54	0,09	0,06	0,44	0,27	7	5	
0750	Side A	dark	9	36	55	0,09	0,07	0,45	0,27	6	5	
Pearl Green	B		9	37	54							
0707 Pearl			9	40	51	0,09	0,06	0,43	0,27	7	3	
0105	Side A		7	29	64	0,08	0,06	0,47	0,28	7	2	
Grey Canary	B	dark	7	22	71							
0108	Side A		6	29	65	0,08	0,06	0,46	0,28	6	2	
Grey Orange	B	dark	6	23	71							
0703	Side A	dark	8	38	54	0,08	0,06	0,44	0,27	5	4	
Pearl Turquoise	B		8	38	54							
0740	Side A	dark	9	30	61	0,09	0,07	0,46	0,28	5	2	
Pearl Marine	B		9	33	58							
0109	Side A		6	27	67	0,07	0,06	0,47	0,28	5	2	
Grey Mandarin	B	dark	6	21	73							
0103	Side A		5	27	68	0,07	0,06	0,47	0,28	5	1	
Grey Turquoise	B	dark	5	21	74							
0150	Side A		5	23	72	0,07	0,06	0,48	0,28	5	1	
Grey Green	B	dark	5	19	76							
0110	Side A		5	22	73	0,07	0,06	0,49	0,28	5	1	
Grey Sable	B	dark	5	20	75							
0101 Grey			5	16	79	0,07	0,06	0,50	0,29	4	1	

The thermal factors of gtot external blind, gtot internal blind and optical factors are the same for sides A and B.

gv = 0.59: solar factor of standard glazing, low-emission 4/16/4 double glazing filled with Argon.

gv = 0.32: solar factor of standard glazing, reflecting low-emission 4/16/4 double glazing filled with Argon.

Samples tested by the calculation methods laid down in standards EN 13363-1 "Solar protection devices combined with glazing

calculation of solar and light transmittance – Part 1: simplified method" and EN 410 "Glass in building – Determination of luminous and solar characteristics of glazing".

Tvdifh* Data available on request.

Thermal and optical factors in the American standard Ashrae 74-73

Openness factor (Co) OF 5%			Thermal factors							Optical factors		
			Ts	Fabric		Fabric + glazing				Tv	Tvndif	Tvdifh
			Rs	As	1/4" Cl.	1/4" H.A.	1/4" Cl.	1/4" H.A.	Sc (Fc) external blind Sc (Fc) internal blind			
Colours												
0202 White			27	59	14	0.24	0.22	0.41	0.36	19	Not applied in the American standard	
0205	Side A	dark	24	60	16	0.26	0.24	0.39	0.35	21		
White Canary	B		24	61	15	0.26	0.24	0.39	0.35	21	-	
2020 Linen			22	49	29	0.24	0.22	0.46	0.38	16	-	
2002	Side A		19	60	21	0.22	0.20	0.38	0.34	16	-	
Linen White	B	dark	19	58	23	0.22	0.21	0.39	0.35	16	-	
0702	Side A		16	49	35	0.20	0.19	0.44	0.38	15	-	
Pearl White	B	dark	16	44	40	0.21	0.20	0.48	0.39	15	-	
1002	Side A		19	48	33	0.22	0.21	0.46	0.38	13	-	
Sable White	B	dark	19	44	37	0.23	0.21	0.48	0.40	13	-	
M45	Side A		12	36	52	0.18	0.17	0.54	0.52	11	-	
Pearl Sable White	B	dark	12	36	52	0.18	0.17	0.54	0.52	11	-	
0707 Pearl			14	32	54	0.18	0.17	0.55	0.43	11	-	
0740	Side A	dark	11	27	62	0.18	0.18	0.57	0.44	10	-	
Perle Marine	B		11	31	58	0.18	0.17	0.55	0.43	10	-	
0102	Side A		10	35	55	0.16	0.15	0.52	0.42	8	-	
Grey White	B	dark	10	26	64	0.17	0.16	0.57	0.44	8	-	
1010 Sable			10	38	52	0.20	0.19	0.50	0.41	8	-	
1006	Side A	dark	10	19	71	0.15	0.15	0.62	0.47	9	-	
Sable Bronze	B		10	26	64	0.15	0.14	0.57	0.44	9	-	
0108	Side A		8	31	61	0.15	0.15	0.54	0.43	8	-	
Grey Orange	B	dark	8	23	69	0.16	0.15	0.59	0.45	8	-	
0150	Side A		7	20	73	0.16	0.15	0.60	0.46	8	-	
Grey Green	B	dark	7	17	76	0.16	0.15	0.62	0.47	8	-	
M38	Side A		6	18	76	0.15	0.14	0.61	0.47	8	-	
Charcoal Grey Linen	B	dark	6	11	83	0.16	0.15	0.66	0.49	8	-	
3006	Side A		6	7	87	0.16	0.16	0.68	0.50	9	-	
Charcoal Bronze	B	dark	6	6	88	0.16	0.16	0.69	0.50	9	-	
0110	Side A		6	26	68	0.16	0.15	0.57	0.44	6	-	
Grey Sable	B	dark	6	20	74	0.16	0.16	0.60	0.46	6	-	
0130	Side A	dark	5	9	86	0.16	0.16	0.67	0.49	5	-	
Grey Charcoal	B		5	11	84	0.16	0.15	0.65	0.49	5	-	
0101 Grey			6	18	76	0.16	0.16	0.61	0.47	5	-	
3030 Charcoal			6	4	90	0.15	0.15	0.70	0.51	6	-	

1/4" Cl: clear 1/4" (6mm) glazing • 1/4" H.A.: heat absorbing 1/4" (6mm) glazing.
Samples tested by the ASHRAE 74-73 standard "Method of measuring solar-optical properties of materials".



Sunscreen® Satiné 5500

Advice

Storage conditions

The rolls of fabric should be stored horizontally, but not piled up, in a place where the temperature and level of humidity is as constant as possible

The fabric should never be folded.

For long-term storage, it is not advisable to leave rolled or folded panels on top of each other.

Advice for blind making

The panels of fabric are cut by blade or ultrasonically. They can be welded (thermal, high frequency or ultrasonic) or sewn together.

The fabric must be properly squared before it is made up, especially for large blinds or structures.

The blinds can be manufactured normally (vertical warp) or railroaded (vertical weft).

Horizontal seams give the best result.

For external blinds, Mermet recommends the sides to be reinforced with welding tapes, made of translucent coated yarns structure.

For tensile structures, it is better to make a pocket to fit all the way round the panel.

Very long blinds may need the addition of stiffeners to ensure they will still hang properly after time.

Care instructions

Remove dust with vacuum cleaner or compressed air.

Do not scrub.

Do not use solvents or any abrasive substance that might damage the coating of fabric.

Clean with a sponge or soft brush dipped in soapy water (a high pressure water spray can be used at a distance on external blinds).

Rinse with clear water.

Leave the blind down until completely dry.