



Nature's Choice®
Architect SUNLUX®
Low-e Collection

A close-up photograph of a woman's face. She has dark brown hair and is wearing red face paint with a black horizontal line across her forehead. She is peeking from behind a large, textured green leaf, which covers the left side of the frame.

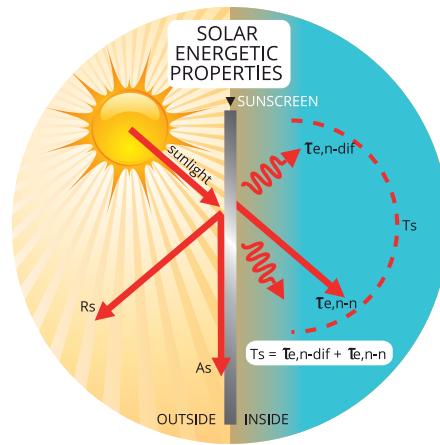
Working of a
SUNLUX®
SUNSCREEN

Working of a Sunlux® Sunscreen



Sunscreen = protection against sunrays

Sunscreen means protection against the sunrays, so the function is the protection against light and heat, which is expressed in several properties.



Rs	Solar reflectance
As	Solar absorptance
Ts	Solar transmittance
Te,n-dif	Diffuse solar transmittance
Te,n-n	Normal solar transmittance

Classes indicate effect of a sunscreen

Based on certain properties, the screen can be split up in classes, from 0 to 4.

Those classes are used, starting from the norm EN 14501, to indicate the effect of a certain sunscreen.

influence on thermal and visual comfort	
Class 0	very little effect
Class 1	little effect
Class 2	moderate effect
Class 3	good effect
Class 4	very good effect

OPENNESS FACTOR



The openness of a screen is indicated by the openness factor = **OF**.

The openness coefficient is the relative area of the openings in the fabric seen under a given incidence. The openness factor is seen under a normal incidence.

LIGHT TRANSMITTANCE

The sunrays are subdivided in: **Visible light**, **UV-light** and **IR-light**.

Visible light (55% of the sun-energy) is that part for which our eyes are most sensitive. The larger the light intensity, the more detrimental for our eyes. The factor **Visible Light Transmittance** = **T_v**, is the ratio of visible light that will be transmitted. The lower this factor can be kept, the better for the eyes.

UV-light (3% of the sun-energy) is the part of radiation which is detrimental for our health. This factor is indicated by the **UV Transmittance** = **T_{uv}**. This is the quantity UV-light transmitted by the sunscreen.

IR-light is invisible. This is however 42% of the sun-energy. These rays care for the reheating of solid substances and gases.

INFLUENCE OF COLOURS

The choice of the colour has direct influence on the criteria which justify the use of sunscreen protection:

- Protection against visible light, expressed by the factor **T_v**.
- Protection against sun-energy, expressed by the **G** value.
- Protection against secondary heat, expressed by the factor **Q_i**.
- Protection against UV-light, expressed by the factor **T_{uv}**.

Sunlux® Visual Properties: CLASSES



GLARE CONTROL

The capacity of the solar protection device to control the luminance level of openings and to reduce the luminance contrasts between different zones within the field.

Tv,n-n	Tv,n-dif			
	Tv,n-dif < 0,02	0,02 ≤ Tv,n-dif < 0,04	0,04 ≤ Tv,n-dif < 0,08	Tv,n-dif ≥ 0,0
Tv,n-n > 0,10	0	0	0	0
0,05 < Tv,n-n ≤ 0,10	1	1	0	0
Tv,n-n ≤ 0,05	3	2	1	1
Tv,n-n = 0,00	4	3	2	2

PRIVACY AT NIGHT

Night privacy is the capacity of an internal or external blind or a shutter in the fully extended position or fully extended and closed position to protect persons, at night in normal light conditions from external view.

External views means the ability of an external observer located 5m from the fully extended and closed product, to distinguish a person or object standing 1m behind the protection device in the room.

Tv,n-n	Tv,n-dif		
	0 < Tv,n-dif ≤ 0,04	0,04 < Tv,n-dif ≤ 0,15	Tv,n-dif > 0,15
Tv,n-n > 0,10	0	0	0
0,05 < Tv,n-n ≤ 0,10	1	1	1
Tv,n-n ≤ 0,05	2	2	2
Tv,n-n = 0,00	4	3	2

VISUAL CONTACT WITH THE OUTSIDE

Visual contact with the outside is the capacity of the solar protection device to allow an exterior view when it is fully extended. This function is affected by different light conditions during the day.

Tv,n-n	Tv,n-dif		
	0 < Tv,n-dif ≤ 0,04	0,04 < Tv,n-dif ≤ 0,15	Tv,n-dif > 0,15
Tv,n-n > 0,10	4	3	2
0,05 < Tv,n-n ≤ 0,10	3	2	1
Tv,n-n ≤ 0,05	2	1	0
Tv,n-n = 0,00	0	0	0

DAYLIGHT UTILISATION

Daylight utilisation is characterised by:

- the capacity of the solar protection device to reduce the time period during the artificial light is required.
- the capacity of the solar protection device to optimise the daylight which is available.

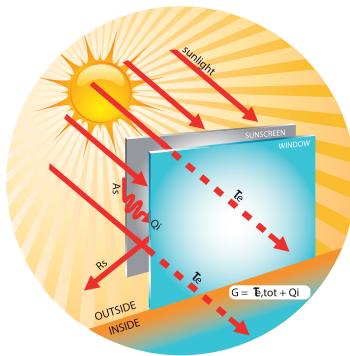
CLASS	0	1	2	3	4
Tv,dif-h	Tv,dif-h < 0,02	0,02 ≤ Tv,dif-h < 0,10	0,10 ≤ Tv,dif-h < 0,25	0,25 ≤ Tv,dif-h < 0,40	Tv,dif-h ≥ 0,40

Thermal Comfort

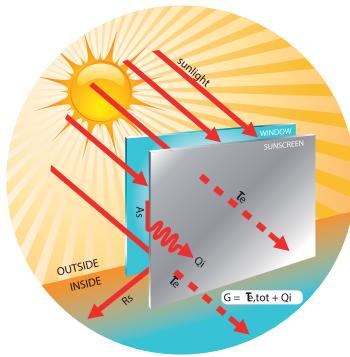
FABRIC

Energy radiated by the sun will be split up in 3 factors:

Factor 1	Factor 2	Factor 3
		
These 3 factors together are always 100%		



EXTERIOR SUNSCREEN



INTERIOR SUNSCREEN

THE G-FACTOR

Sunscreens are always used in combination with a glazing. These together will prevent a large quantity of energy, sent by the sun to the earth, which is indicated by the: Total Solar Energy Transmittance, or **G-factor**.

The G value is the ratio between the total solar energy transmitted into a room through a window and the incident solar energy on the window. The **G_{tot}** is the solar factor of the combination of glazing and solar protection device. The **G_v** is the solar factor of the glazing alone.

The shading coefficient is defined as the ratio of the solar factor of the combined glazing and solar protection device **G_{tot}** to that of the glazing alone **G_v**.

The total solar energy transmitted through a window consists of two parts:

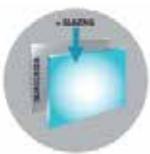
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- 1) Radiation: measured by the solar transmittance: **e_{tot}**
- 2) Heat: measured by the secondary heat transfer: **Q_i**

$$G = e_{tot} + Q_i$$

Rs	Solar reflectance
As	Solar absorptance
T_e	Direct solar transmittance
Q _i	Secondary heat transfer factor
G	G-factor = total solar energy transmittance

EXTERIOR SUNSCREEN



INTERIOR SUNSCREEN



The factor **T_{e,tot}**, is the quantity of energy, which will pass the combination solar protection device and window.

The factor **Q_i** is the quantity of heat which is released by the absorption of energy in the sunscreen protection system = combination sunscreen + glazing.

The **G-factor** is the most important factor to explain the efficiency of a combination sunscreen + glazing, as protection against the energy of the sun. The **G-factor** divided into his components explains the difference in efficiency between exterior and interior sunscreen.

The direct solar transmittance **T_{e,tot}** is the same for interior and exterior use of sunscreens.

The secondary heat factor **Q_i** for interior sunscreen is bigger then for exterior sunscreen. For interior use, the heat, produced by the absorption of energy, will be transmitted to the room inside. By exterior use, the heat will be transmitted to the outside, without any inconvenience at the inside.

Also the colour of the sunscreen has an influence on the **G-factor**. Dark colours will absorb a lot of sun energy and will transmit this to heat. If the screen is used for exterior, heat will have no influence inside the room, contrary to a screen used for interior. This is why a darker screen is ideal for exterior use and a lighter screen for interior use.

Thermal Comfort: CLASSES



TOTAL SOLAR ENERGY TRANSMITTANCE = G-FACTOR

CLASS	0	1	2	3	4
Gtot	$G_{tot} \geq 0,50$	$0,35 \leq G_{tot} < 0,50$	$0,15 \leq G_{tot} < 0,35$	$0,10 \leq G_{tot} < 0,15$	$G_{tot} < 0,10$

SECONDARY HEAT TRANSFER = QI

CLASS	0	1	2	3	4
Qi	$Qi \geq 0,30$	$0,20 \leq Qi < 0,30$	$0,10 \leq Qi < 0,20$	$0,03 \leq Qi < 0,10$	$Qi < 0,03$

NORMAL SOLAR TRANSMITTANCE = PROTECTION AGAINST DIRECT TRANSMISSION

The ability of a solar protection device to protect persons and surroundings from direct irradiation is measured by the direct/direct solar transmittance of the device in combination with the glazing. $\tau_{e,n-n}$ is used as measure for this property.

CLASS	0	1	2	3	4
$\tau_{e,n-n}$	$\tau_{e,n-n} \geq 0,20$	$0,15 \leq \tau_{e,n-n} < 0,20$	$0,10 \leq \tau_{e,n-n} < 0,15$	$0,05 \leq \tau_{e,n-n} < 0,10$	$\tau_{e,n-n} < 0,05$



Introducing
SUNLUX®
SEA-TEX™

*Recycling the **present**
to save the **future***

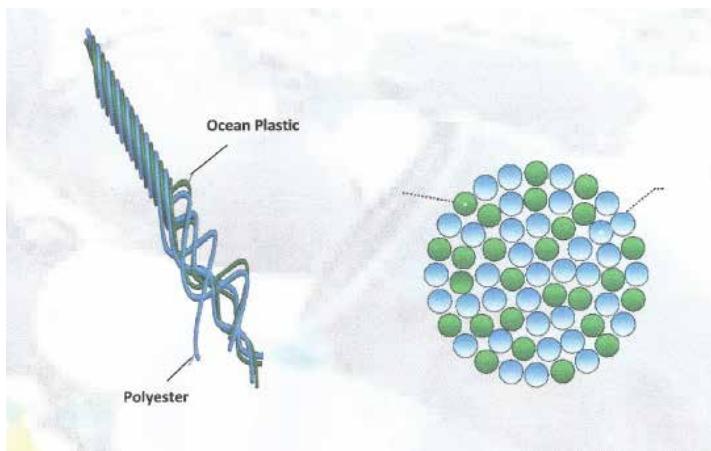


SUNLUX®
SEA-TEX™ FR



Sunlux® Sea-Tex™
Distributed exclusively by Blind Solutions®

Roller Shade Fabrics Produced From Recovered Shoreline Plastic



Facing Ocean Plastic

A massive amount of plastic trash ends up in our oceans every year. The ocean currents have formed five gigantic, slow moving whirlpools where the plastic collects.





Sunlux® Sea-Tex™
Distributed exclusively by Blind Solutions®

Marine Debris

Timeline of Biodegradation

WAXED
MILK CARTON

FOAMED
PLASTIC CUP

PET
BOTTLE

FISHING
NET



3 MONTHS

50 YEARS

450 YEARS

600 YEARS



Sunlux® Sea-Tex™

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FABRIC PROPERTIES

2-3%
OPENNESS FACTOR

250g/m²
WEIGHT

0.45mm
THICKNESS

300cm
WIDTH

FABRIC SPECIFICATION AND FENESTRATION PROPERTIES

INTERNATIONAL FIRE
RATING STANDARDS

B1

DIN 4102 B1

EU

EUROCLASS EN 13501-1:2007
CLASSIFICATION : B-s1,d0

SOUND ABSORPTION
ISO 354:2003 & ISO 11654:1997

ALPHA-W=0.30

SOUND ABSORPTION CLASS: D

COLOUR RENDERING INDEX ISO EN 410

Antarctic White	Pacific Sand	Atlantic Stone	Mediterranean Slate	Caspian Black
Ra = 97	Ra = 91	Ra = 92	Ra = 98	Ra = 96



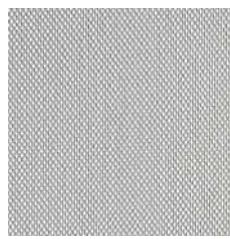
Sunlux® Sea-Tex™

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COLOUR	Openness Factor / OF	Ultraviolet Transmittance / Tuv	Light Transmittance / Tv	Light Reflectance / Rv	Solar Transmittance / Ts	Solar Reflectance / Rs	Solar Absorption / As
Antarctic White	2-3%	8%	31%	62%	31%	59%	10%
Pacific Sand	2-3%	5%	22%	53%	26%	55%	19%
Atlantic Stone	2-3%	5%	13%	34%	23%	47%	30%
Mediterranean Slate	2-3%	5%	5%	9%	19%	31%	50%
Caspian Black	2-3%	7%	19%	45%	26%	52%	22%



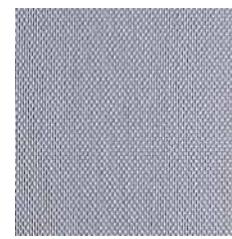
Antarctic White
0204



Pacific Sand
0750



Atlantic Stone
1229



Mediterranean Slate
1500



Caspian Black
1750



Sunlux® Sea-Tex™
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where does your plastic go?





SUNLUX®
SEA-TEX™
STERLING FR



Sunlux® Sea-Tex™ Sterling FR

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ARTICLE CHARACTERISTICS

Material Composition 50% PES/50% ReOPLASTIC	Transparent <input type="checkbox"/>	Flame Retardant <input checked="" type="checkbox"/> B1	Light Fastness 6
Width in mm 2800mm	Semi-transparent <input checked="" type="checkbox"/> v	Anti Static <input checked="" type="checkbox"/> v	Cutting direction B
Thickness in mm 0.45mm	Opaque <input type="checkbox"/>	Suitable for Humid Environment <input type="checkbox"/>	Pattern Repeat Width cm
Weight in gr/m² 250gr/m²	Room Darkening <input type="checkbox"/>	Anti Bacterial <input type="checkbox"/>	Pattern Repeat Height cm

CLEANING

Hand <input type="checkbox"/>	Sponge <input type="checkbox"/>	Brush <input checked="" type="checkbox"/> v
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ASSEMBLY

Laser <input type="checkbox"/>	Ultra <input checked="" type="checkbox"/> v	Knife <input type="checkbox"/>	Friction <input type="checkbox"/>
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Sunlux® Sea-Tex™ Sterling FR

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ENVIRONMENTAL LABELS

PVC Free <input checked="" type="checkbox"/>	GreenGuard	OEKO-TEX® STANDARD 100	Okotex	HD KOG Bottle
Cradle to Cradle		Halogen free		HD KOG Leaf

LIGHT AND ENERGY VALUES		A		B		D	
Glass (mm)		4		4/12/4		4/16/4	
U-value [W/(M²K)]		5.80		2.90		1.10	
g-value[-]		0.85		0.76		0.32	
G=1/(U+1/G2)[W/(M²K)]		4.86		2.64		1.06	

COLOUR	Rv	TV Total	TV Diff	TV Dir	Rs	Ts	Tuv	g	gA	gB	gD	Comfort Value (Fc)	Glare Control	Openness Factor
0204	44	9	5	4	44	9	6	21	46	47	27	0.72	1	2 - 3%
0750	44	8	4	4	45	8	6	20	46	47	27	0.72	2	2 - 3%
1229	44	7	3	4	45	8	6	20	46	47	27	0.72	2	2 - 3%
1500	43	7	3	4	44	8	6	21	47	47	27	0.72	2	2 - 3%
1750	42	4	1	3	44	6	4	19	46	47	27	0.72	3	2 - 3%



Antarctic White
Sterling
0204

Pacific Sand
Sterling
0750

Atlantic Stone
Sterling
1229

Mediterranean Slate
Sterling
1500

Caspian Black
Sterling
1750

A close-up photograph of a woman's face, focusing on her eye and nose. Her skin has a dark, textured appearance with numerous small, colorful glitter particles scattered across it. She has dark hair and is looking directly at the camera.

SUNLUX®
Carbon Earth
& Titanium Metal
100% Recycled PET Bottles

Sunlux® Carbon Earth & Titanium Metal

COLOURS & REFERENCES



002002 white*



093093 mist



095095 royal blue



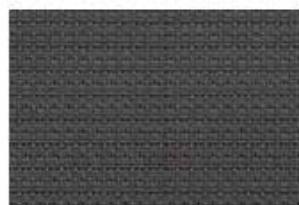
086086 slate



087087 plum slate



089089 basalt



090090 galena



010010 black*

SUNLUX® CARBON EARTH 1%

	240 cm	250 cm	320 cm
002002 white		•	
010010 black		•	

SUNLUX® CARBON EARTH 3%

	240 cm	250 cm	320 cm
002002 white		•	•
093093 mist		•	•
095095 royal blue		•	•
086086 slate		•	•
087087 plum slate		•	•
089089 basalt		•	•
090090 galena		•	•
010010 black		•	•

SUNLUX® CARBON EARTH 8%

	240 cm	250 cm	320 cm
002002 white		•	
010010 black		•	

SUNLUX® TITANIUM METAL 1%

	240 cm	250 cm	320 cm
002002 white	•		
010010 black	•		

SUNLUX® TITANIUM METAL 3%

	240 cm	250 cm	320 cm
002002 white	•		
093093 mist	•		
095095 royal blue	•		
086086 slate	•		
087087 plum slate	•		
089089 basalt	•		
090090 galena	•		
010010 black	•		

SUNLUX® TITANIUM METAL 8%

	240 cm	250 cm	320 cm
002002 white	•		
010010 black	•		



Sunlux® Carbon Earth & Titanium Metal

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	UNITY	STANDARD	RESULT											
			CARBON EARTH			TITANIUM METAL								
composition			100 % recycled PET bottles			100 % recycled PET bottles								
openness factor	%	NBN EN 410	1%	3%	8%	1%	3%	8%						
weight	g/m ²	NF EN 12127	243	223	186	262	226	200						
thickness	mm	ISO 2286-3	0,52	0,53	0,586	0,522	0,464	0,531						
fire classification	Europe	UNE-EN 13501-1:2007	C-s3,d0			C-s3,d0								
	France	NF P92-503	M1			M1								
	Italy	UNI 9177	Class 1											
	Germany	DIN 4102	B1			B1								
	UK	BS 5867	C											
	USA	NFPA 701	FR											
roll length	30m													
cleaning	with soapy water													
confection	by heat, high frequency or ultrasonic welding													

Sunlux® Carbon Earth

SOLAR ENERGETIC PROPERTIES

SUNLUX® CARBON EARTH 3%		SOLAR ENERGETIC PROPERTIES								VISUAL PROPERTIES			
		FABRIC			FABRIC + GLAZING								
					INTERIOR		G-factor = total solar energy transmittance						
					As = Solar Absorptance %		Rs = Solar Reflectance %		Ts = Solar Transmittance %				
references	colours												
002002	white		5,4	60,4	34,2	0,41	0,41	0,38	0,26	33,1	35,5		
093093	mist		27,8	46,2	26	0,57	0,55	0,47	0,28	16,9	7,7		
095095	royal blue		51,8	29,8	18,4	0,56	0,55	0,47	0,28	4,4	4,3		
086086	slate		41,7	37,2	21,1	0,52	0,52	0,45	0,28	8,5	7,5		
087087	plum slate		50,5	31,9	17,6	0,55	0,54	0,47	0,28	4,4	4,5		
089089	basalt		49,9	32,2	17,9	0,55	0,54	0,47	0,28	4,6	4,5		
090090	galena		51,8	30,8	17,4	0,56	0,55	0,47	0,28	4,2	4,1		
010010	black		54	29,3	16,7	0,56	0,55	0,48	0,28	3,1	3,5		
SUNLUX® CARBON EARTH 1%													
002002	white		5,9	62,6	31,5	0,39	0,39	0,37	0,25	30,2	28,2		
010010	black		55,7	28,3	16	0,57	0,56	0,48	0,28	1,7	1,9		
SUNLUX® CARBON EARTH 8%													
002002	white		5,1	57,6	37,3	0,43	0,42	0,39	0,26	36	36,2		
010010	black		52,3	27,1	20,6	0,58	0,57	0,48	0,29	6,6	7,1		

GLAZING A = clear single glazing 4 mm | **Gv = 0,85**

GLAZING B = clear double glazing (4/12/4), space filled with air | **Gv = 0,76**

GLAZING C = double glazing (4/16/4), with a low emissivity coating in position 3, space filled with argon | **Gv = 0,59**

GLAZING D = reflective double glazing (4/16/4), with a low emissivity coating in position 2, space filled with argon | **Gv = 0,32**



Sunlux® Carbon Earth 1%



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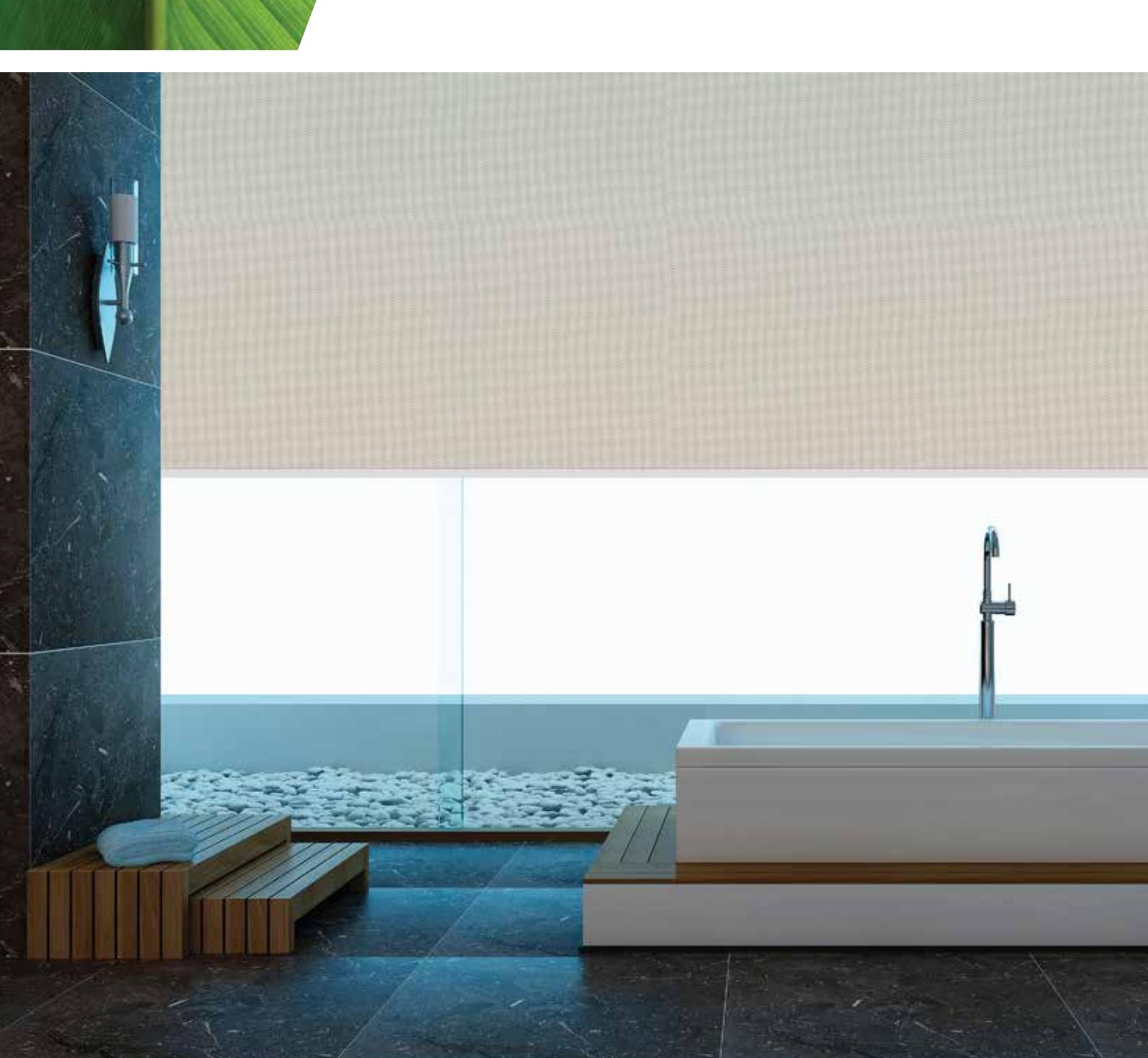
Sunlux® Carbon Earth 3%



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Sunlux® Carbon Earth 8%



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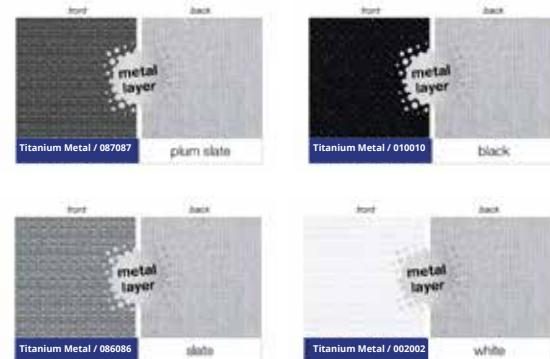
Sunlux® Titanium Metal

SOLAR ENERGETIC PROPERTIES

SUNLUX® TITANIUM METAL 3%			SOLAR ENERGETIC PROPERTIES								VISUAL PROPERTIES	
references	colours		FABRIC			FABRIC + GLAZING						
						INTERIOR			G-factor = total solar energy transmittance			
002002	white		front	31,2	59,1	9,7	0,38	0,40	0,38	0,26	9,6	10,8
			back	31,1	59,2	9,7	0,38	0,40	0,38	0,26	9,6	10,8
093093	mist		front	38,7	53,9	7,4	0,41	0,42	0,39	0,26	6,0	3,2
			back	48,0	44,6	7,4	0,46	0,47	0,42	0,27	6,0	3,2
095095	royal blue		front	41,8	51,7	6,5	0,42	0,43	0,40	0,26	4,3	3,7
			back	65,3	28,2	6,5	0,56	0,55	0,48	0,28	4,3	3,7
086086	slate		front	56,1	36,9	7,0	0,51	0,51	0,45	0,28	4,1	4,0
			back	36,1	56,9	7,0	0,39	0,41	0,38	0,26	4,1	4,0
087087	plum slate		front	63,0	31,1	5,9	0,54	0,54	0,47	0,28	2,9	2,9
			back	36,4	57,7	5,9	0,38	0,40	0,38	0,26	2,9	2,9
089089	basalt		front	63,0	31,1	5,9	0,54	0,54	0,47	0,28	2,9	2,9
			back	36,4	57,7	5,9	0,38	0,40	0,38	0,26	2,9	2,9
090090	galena		front	63	31,1	5,9	0,54	0,54	0,47	0,28	2,9	2,9
			back	36,4	57,7	5,9	0,38	0,40	0,38	0,26	2,9	2,9
010010	black		front	65,8	28,7	5,5	0,55	0,55	0,47	0,28	2,4	2,5
			back	34,8	59,7	5,5	0,37	0,39	0,37	0,25	2,4	2,5
SUNLUX® TITANIUM METAL 1%												
002002	white		front	38,7	54,1	7,2	0,41	0,42	0,39	0,26	7,0	7,8
			back	33,9	58,9	7,2	0,38	0,40	0,38	0,26	7,0	7,8
010010	black		front	42,3	53,4	4,3	0,41	0,42	0,39	0,26	1,9	2,0
			back	69,5	26,2	4,3	0,56	0,56	0,48	0,28	1,9	2,0
SUNLUX® TITANIUM METAL 8%												
002002	white		front	37,1	50,2	12,7	0,44	0,44	0,41	0,26	12,4	13
			back	33,9	53,4	12,7	0,42	0,43	0,40	0,26	12,4	13
010010	black		front	38,6	50,9	10,5	0,43	0,44	0,40	0,26	8,4	8,5
			back	64	25,5	10,5	0,58	0,57	0,49	0,29	8,4	8,5

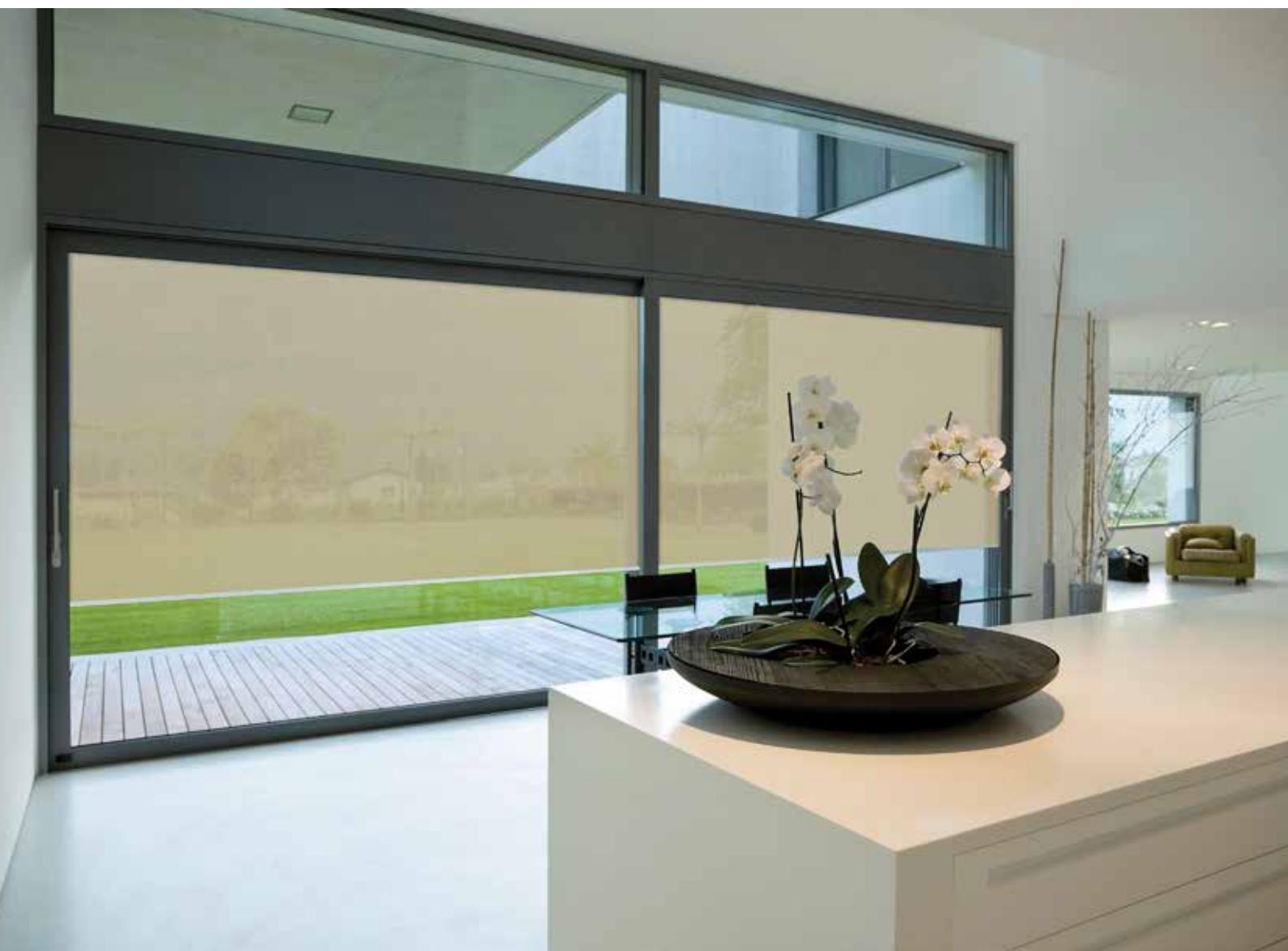
GLAZING A = clear single glazing 4 mm | $Gv = 0,85$
 GLAZING B = clear double glazing (4/12/4) space filled with air | $Gv = 0,76$
 GLAZING C = double glazing (4/16/4), with a low emissivity coating in position 3, space filled with argon | $Gv = 0,59$
 GLAZING D = reflective double glazing (4/16/4), with a low emissivity coating in position 2, space filled with argon | $Gv = 0,32$

Sunlux® Titanium Metal



TECHNICAL SPECIFICATION		UNITY		STANDARD	RESULT
composition				100 % recycled PET bottles	
openness factor		%		NBN EN 410	3%
weight		g/m ²		NF EN 12127	215
thickness		mm		ISO 5084	0,6
density		yarn/cm	warp	ISO 7211/2	21
			weft		18
colour fastness to artificial light				ISO 105 B02	>7
tear strength	original	daN	warp	ISO 4674-1 method 2	5,2
			weft		6,8
elongation up to break	original	%	warp	ISO 1421	36
			weft		33,5
breaking strength	original	daN/5cm	warp	ISO 1421	160
			weft		135
tear strength	after colour fastness to artificial light	daN	warp	ISO 4674-1 method 2	3,8
			weft		4,9
tear strength	after climatic chamber -30°C	daN	warp	ISO 4674-1 method 2	5,0
			weft		6,2
tear strength	after climatic chamber +70°C	daN	warp	ISO 4674-1 method 2	5,2
			weft		6,7
fire classification	Europe			UNE-EN 13501-1:2007	C-s3, d0
	France			NF P92-503	M1
	Italy			UNI 9177	
	Germany			DIN 4102	B1
	UK			BS 5867	
	USA			NFPA 701	
roll length			30m		
cleaning			with soapy water		
confection			by heat, high frequency or ultrasonic welding		

Sunlux® Titanium Metal 1%



Sunlux® Distributed exclusively by *Blind Solutions®*

www.blindsolutions.co.za | sales@blindsolutions.co.za

Sunlux® Titanium Metal 3%



Sunlux® Distributed exclusively by *Blind Solutions®*

www.blindsolutions.co.za | sales@blindsolutions.co.za



Sunlux® Titanium Metal 8%



Sunlux® Distributed exclusively by *Blind Solutions®*

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SUNLUX® Chrome

Sunlux® Chrome



Metalised backing to combine excellent glare control,
view through and thermal comfort.

YARN

TECHNICAL SPECIFICATIONS	AVERAGE VALUES	STANDARD
Titer	95 tex	ISO 1889 (2009)
Weighted composition	Warp: Glass 36%, PVC 64%	ISO 3801 (1977)
Diameter	0.28 mm	
Environment		Oekotex standard 100

FABRIC

TECHNICAL SPECIFICATIONS	AVERAGE VALUES	STANDARD
Type of fabric	PVC-coated fibreglass fabric with aluminum back	
Weave pattern	basket weave	
Widths	2400 mm (tolerance -0%, +5%)	
Roll length (nominally)	30 m	
Thickness	0.50 mm	ISO/DIS 5084.2 (1996)
Mass	401 g/m ²	ISO 3801 (1977)
Fire resistance	FR	NFPA 701 (2010)
Breaking strength	warp 140 daN, weft 180 daN	ISO 13934-1 (1999)
Elongation at break	warp 3%, weft 5.2%	ISO 13934-1 (1999)
Tear resistance	warp 5.6 daN, weft 6.4 daN	ISO 4674 part 1 method A (2003)
Colourfastness	7-8 scale of blue	ISO 105 B02 (1994)
Air porosity	299 l/m ² /sec	ISO/DIS 9237 (1995)

THE QUALITY CHAIN

GENERAL

Specifications are purely indicative and may not be considered as binding. Colours may vary from the samples shown

Cutting crush or ultrasonic; railroad or width out of roll width

Welding thermal, HF, ultrasonic, sewing

Cleaning vacuum cleaning or using a soft cloth

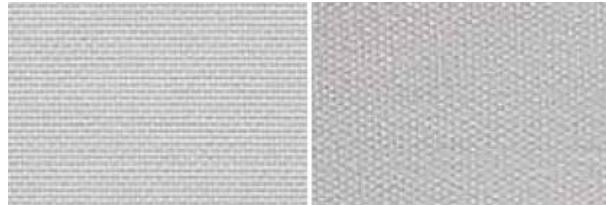
Sunlux® Chrome

OUR SUNLUX® CHROME FABRIC WITH A METALIZED BACK

- Reflects up to 72% of the solar energy
- Improved thermal comfort
- Reduces the amount of diffuse light transmittance
- Improved glare control and view through
- Improved visual comfort
- Sunlux® Chrome openness factor 3%

101101 white - A/B

Width: 2400mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare Control
A	3.8	69.9	26.3	3.7	1.2	2.5	2.9	2.91	Class 3
B	3.7	72.5	23.8	3.6	1.4	2.2	2.8	2.87	Class 3

gtot

	A	B	C	D
	int.	int.	int.	int.
A Values	0.31	0.34	0.34	0.25
A Classes	2	2	2	2
B Values	0.29	0.33	0.33	0.24
B Classes	2	2	2	2

101116 white-linen - A/B

Width: 2400mm



Solar Heat & Light Control Properties

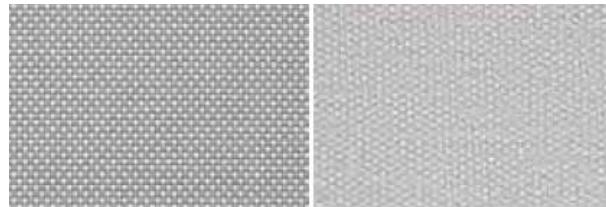
	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare Control
A	2.8	64	33.2	2.8	1	1.8	2.1	2.22	Class 3
B	3.4	72.4	24.2	3.3	1.3	2	2.5	2.63	Class 3

gtot

	A	B	C	D
	int.	int.	int.	int.
A Values	0.34	0.37	0.36	0.25
A Classes	2	1	1	2
B Values	0.29	0.33	0.34	0.24
B Classes	2	2	2	2

101117 white-pearl - A/B

Width: 2400mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare Control
A	3.1	55.3	41.6	3	0.9	2.1	2.4	2.35	Class 3
B	3.5	71.2	25.3	3.5	1.2	2.3	2.8	2.77	Class 3

gtot

	A	B	C	D
	int.	int.	int.	int.
A Values	0.39	0.41	0.39	0.26
A Classes	1	1	1	2
B Values	0.30	0.33	0.33	0.24
B Classes	2	2	2	2

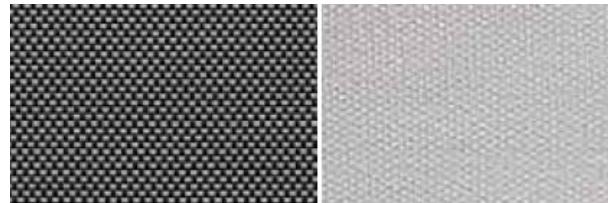
Sunlux® Chrome

OUR SUNLUX® CHROME FABRIC WITH A METALIZED BACK

- Reflects up to 72% of the solar energy
- Improved thermal comfort
- Reduces the amount of diffuse light transmittance
- Improved glare control and view through
- Improved visual comfort
- Sunlux® Chrome openness factor 3%

118117 black-pearl - A/B

Width: 2400mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare Control
A	2.6	11.3	86.1	2.6	0.4	2.2	2.6	1.98	Class 3
B	2.6	72.7	24.7	2.6	0.6	2	2.5	2.01	Class 3

gtot

	A	B	C	D
	int.	int.	int.	int.
A Values	0.65	0.64	0.53	0.30
A Classes	0	0	0	2
B Values	0.29	0.32	0.33	0.24
B Classes	2	2	2	2

118118 night - A/B

Width: 2400mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare Control
A	2.8	4.6	92.6	2.8	0.4	2.4	2.8	2.13	Class 3
B	3	72.3	24.7	3	0.7	2.3	2.9	2.32	Class 3

gtot

	A	B	C	D
	int.	int.	int.	int.
A Values	0.69	0.67	0.55	0.30
A Classes	0	0	0	2
B Values	0.29	0.33	0.33	0.24
B Classes	2	2	2	2

Sunlux® Metal



COLOUR	Tv	Rv	Av	Ts	Rs	As	COMPOSITION	FR	THICKNESS	WEIGHT /m²	OF	gt	Fc	LIGHT FASTNESS (DIN EN ISO 105 B02)
12.002 Quartz	11%	42%	47%	11%	43%	46%	100% PLA	B1	0,47 mm	175 gr	3%	0,46	0,66	<6
12.013 Marble	9%	43%	48%	10%	46%	44%	100% PLA	B1	0,47 mm	175 gr	3%	0,45	0,64	<6
12.003 Slate	8%	44%	47%	9%	46%	45%	100% PLA	B1	0,47 mm	175 gr	3%	0,45	0,64	<6
12.004 Flint	8%	40%	52%	9%	41%	50%	100% PLA	B1	0,47 mm	175 gr	3%	0,47	0,67	<6
12.009 Sandstone	9%	39%	52%	10%	40%	50%	100% PLA	B1	0,47 mm	175 gr	3%	0,47	0,68	<6
12.034 Basalt	6%	37%	57%	7%	38%	55%	100% PLA	B1	0,47 mm	175 gr	3%	0,48	0,69	<6
12.021 Granite	5%	38%	57%	6%	39%	55%	100% PLA	B1	0,47 mm	175 gr	3%	0,48	0,68	<6
12.038 Nero	4%	42%	54%	4%	44%	52%	100% PLA	B1	0,47 mm	175 gr	3%	0,46	0,65	<6

Fc and gt results are valid for the following presumptions in accordance with DIN EN 13363-1:
Double glass with thermal protective covering, thermal permeability degree U = 1,6 W/m² and total energy permeability degree g = 0,70 sun protective material inside, closed

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

Tv = Visual Transmission

Rv = Visual Reflection

Av = Visual Absortion

Ts = Solar Transmission

Rs = Solar Reflection

As = Solar Absortion

OF = Openess Factor



SUNLUX®
Metal & Eco-screen by
Blind Solutions®

Sunlux® Metal & Eco-screen by Blind Solutions®

GLARE CONTROL FABRICS MADE FROM PLANTS

Sunlux® Fabrics Division developed a new generation of glare control fabrics that leave other materials trailing behind.

Made from annually renewable materials instead of oil

Sunlux® Fabrics Division is the first sunscreen fabric in the world awarded Cradle to Cradle Certified™ Gold with a Platinum Material Health certificate.



Sunlux® Fabrics Division is made from **PLA (PolyLactic Acid)** named **INGEOTM**, which is a biopolymer.

The production of this PLA biopolymer compared to conventional “polyester” polymer:

- requires 42,9% less energy
- causes 77,3% less CO2 emissions

HOW IS IT MADE?

Sunlux® Fabrics Division is made by extracting sugars from plants grown annually. These sugars are converted into a revolutionary material, which is now being used to produce these ecologically advanced glare control fabrics.

How is textile made from plants?

CAN A NEW GLARE CONTROL FABRIC MAKE THE DIFFERENCE?

At Blind Solutions® we think it can! We set ourselves the challenge of developing glare control fabrics of the highest quality that surpassed our current sustainability requirements.

Sunlux® Metal & Eco-screen by Blind Solutions®

Technical accuracy and market insight into the client's requirements and wishes led to the development of a new generation of glare control fabric, made from renewable raw materials.

Sunlux® Fabrics is not made from the standard polyesters used for conventional glare control fabrics but from Ingeo™, an ingenious new material that is 100% extracted from annually renewable vegetable raw materials rather than from oil. Sunlux® Fabrics meets the same performance standards as polyester fabrics. It is very stable and durable. Less fossil fuels are also used in the production of the raw materials and less greenhouse gases are produced in comparison with the traditional polymers used for synthetic fibres.



WHAT IS THE DIFFERENCE?

Did you know that replacing 25,000 square metres of glarecontrol fabric made from polyester with equivalent 170 GSM material made from Ingeo™ Fibre is equal to the following:

FOSSIL FUEL SAVINGS EQUIVALENT TO:

- » burning 3,837 litres of petrol
- » burning 1,096 gallons of gasoline
- » monthly electricity consumption by 81 residents in Western Europe
- » monthly electricity consumption by 35 residents of the U.S.
- » monthly electricity consumption by 55 residents of Australia/New Zealand

Sunlux® Metal & Eco-screen by Blind Solutions®

CO2 SAVINGS EQUIVALENT TO:

- » covering 55,941 kilometres in a new car in Western Europe
- » covering 22,475 miles in a new car in the U.S.
- » covering 43,719 kilometres in a new car in Australia/New Zealand
- » the consumption of 2 cars not driving for one year in the U.S.
- » the storage of carbon by 2 hectares of pine or fir forest for a year
- » the consumption of 342 propane cylinders used for home barbecues
- » the growing of 210 tree seedlings for 10 years

These reductions are estimates, and based on the “cradle to pellet” element of the life cycle. Ingeo™’s ecological profile and the available data on PET are applicable here. The calculations are based on all 170 grams per square metre PET being replaced by the same weight in Ingeo™ fibre and there being no changes to the ecological footprint associated with processing of the polymer to end product later in the production chain.

SUNLUX® METAL AND ECO-SCREEN

Sunlux® Fabrics is an innovation based on 100% annually renewable vegetable raw materials

Sunlux® Fabrics has outstanding light fastness

Sunlux® Fabrics glare control fabrics are certified by the STFI

Sunlux® Fabrics is durable and dimensionally stable

Sunlux® Fabrics meets the performance standards for polyester

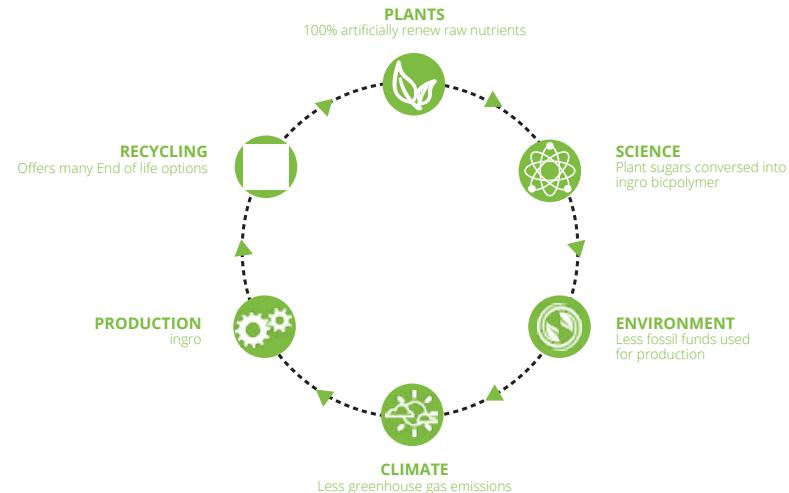
Sunlux® Fabrics uses less fossil fuels from cradle to pellet

Sunlux® Fabrics causes less emissions of greenhouse gases during production*

Sunlux® Fabrics glare control fabrics contribute to carbon footprint reduction*

In comparison with traditional polymers used for synthetic fibres

Sunlux® Metal & Eco-screen by Blind Solutions®



01

INGEO BIOPOLYMER BEGINS
WITH PLANTS

02

PHOTOSYNTHESIS HOW
NATURE MAKES SUGARS

03

CONVERTING SUGAR INTO
PLASTIC

1. Ingeo™ biopolymers are made from plants. Sunlux® Fabrics bioplastic is composed of long chains of polylactic acid made of natural sugars.
2. Carbon dioxide is absorbed by the plant. Water is absorbed by the plant, through the roots. Sunlight is the energy source used by the plant to convert CO₂ and water into sugar. Glucose (sugar) is used as an energy source by the plant, and stored in the form of starch. This starch is the raw material for Ingeo™ bioplastic. Oxygen is released during this process.
3. The first step is converting the starch from the plant into sugars. These sugars are converted into lactic acid through a fermentation process (also used to make wine and beer). This lactic acid is then linked into long chains called polylactic acid. The polylactic acid is the bioplastic (plastic made from biological raw materials or plants). Nature Works calls this bioplastic Ingeo™.



Sunlux® Metal & Eco-screen by Blind Solutions®

04

INNOVATIONS WITH INGEO

05

REVOLUTION OFFERS DIVERSE
RECYCLING OPTIONS

4. The Ingeo™ bioplastic is converted into a fibre by our partners. This is then spun into a yarn that is used to weave the glare control fabrics Sunlux® Fabrics and Eco-screen. Subsequent processes ensure that the blinds meet high quality standards.
5. After the use phase, the glare control fabrics can be mechanically recycled. In mechanical recycling the plastic is processed back into pellets that can be re-used for a new application. Sunlux® Fabrics products can also be incinerated with energy recovery. This can be used to produce green electricity or steam, since the carbon in the material is from renewable raw materials.
If Sunlux® Fabrics ends up in a landfill site it will not break down, so the carbon will be stored in the landfill and a positive contribution will therefore be made to climate change. There is an End of Life Option to compost Ingeo™, but this is still being investigated in the case of Sunlux® Fabrics. The same is true of the chemical recycling route, through which the polymer is broken down into lactic acid again.



End of life takeback service

Sunlux® Fabrics and Blind Solutions® offers the possibility to take back the Sunlux® Fabrics and Sunlux® Metal fabrics at the end of its life cycle. The fabrics will be mechanically recycled with the highest yield returns possible at a state-of-art recycling plant in Belgium. Of course you can always contact us with questions related to recycling.

Sunlux® Thermo-Tech Metal



COLOUR	Tv	Rv	Av	Ts	Rs	As	COMPOSITION	FR	THICKNESS	WEIGHT /m²	OF	gt	Fc	LIGHT FASTNESS (DIN EN ISO 105 B02)
82.111 Iron	12%	37%	51%	11%	38%	51%	PES	B1	0,49 mm	225 gr	3%	0,48	0,69	<6
82.113 Magnesium	8%	39%	53%	10%	40%	50%	PES	B1	0,49 mm	225 gr	3%	0,47	0,68	<6
82.103 Steel	8%	36%	56%	10%	39%	51%	PES	B1	0,49 mm	225 gr	3%	0,48	0,69	<6
82.130 Nickel	7%	37%	56%	9%	39%	52%	PES	B1	0,49 mm	225 gr	3%	0,48	0,68	<6
82.132 Platinum	6%	36%	58%	9%	39%	52%	PES	B1	0,49 mm	225 gr	3%	0,48	0,68	<6
82.134 Titanium	6%	36%	58%	8%	39%	53%	PES	B1	0,49 mm	225 gr	3%	0,48	0,68	<6
82.136 Copper	5%	36%	59%	8%	39%	53%	PES	B1	0,49 mm	225 gr	3%	0,48	0,68	<6
82.138 Nero	4%	35%	61%	7%	40%	53%	PES	B1	0,49 mm	225 gr	3%	0,47	0,68	<6
82.107 Uranium	12%	38%	50%	12%	38%	50%	PES	B1	0,49 mm	225 gr	3%	0,48	0,69	<6
82.137 Charcoal	3%	38%	59%	6%	41%	53%	PES	B1	0,49 mm	225 gr	3%	0,47	0,67	<6

Fc and gt results are valid for the following presumptions in accordance with DIN EN 13363-1:
Double glass with thermal protective covering, thermal permeability degree U = 1,6 W/m² and total energy permeability degree g = 0,70 sun protective material inside, closed

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

Tv = Visual Transmission

Rv = Visual Reflection

Av = Visual Absortion

Ts = Solar Transmission

Rs = Solar Reflection

As = Solar Absortion

OF = Openess Factor

Sunlux® Thermo-Tech



COLOUR	Tv	Rv	Av	Ts	Rs	As	COMPOSITION	FR	THICKNESS	WEIGHT /m²	OF	gt	Fc	LIGHT FASTNESS (DIN EN ISO 105 B02)
92.111 Snow	40%	59%	1%	40%	58%	2%	PES	B1	0,46 mm	210 gr	3%	0,42	0,59	<6
92.113 Magnesium	23%	39%	38%	32%	48%	20%	PES	B1	0,46 mm	210 gr	3%	0,45	0,65	<6
92.103 Steel	14%	26%	60%	28%	43%	29%	PES	B1	0,46 mm	210 gr	3%	0,47	0,68	<6
92.130 Nickel	12%	20%	68%	27%	39%	34%	PES	B1	0,46 mm	210 gr	3%	0,49	0,7	<6
92.132 Platinum	9%	16%	75%	25%	37%	38%	PES	B1	0,46 mm	210 gr	3%	0,5	0,71	<6
92.134 Titanium	8%	12%	80%	25%	35%	40%	PES	B1	0,46 mm	210 gr	3%	0,51	0,72	<6
92.136 Copper	5%	7%	88%	22%	32%	46%	PES	B1	0,46 mm	210 gr	3%	0,52	0,74	<6
92.138 Nero	3%	3%	94%	19%	27%	54%	PES	B1	0,46 mm	210 gr	3%	0,54	0,77	<6
92.107 Ivory	38%	55%	7%	38%	53%	9%	PES	B1	0,46 mm	210 gr	3%	0,43	0,62	<6
92.137 Charcoal	4%	4%	92%	19%	28%	53%	PES	B1	0,46 mm	210 gr	3%	0,53	0,76	<6

Fc and gt results are valid for the following presumptions in accordance with DIN EN 13363-1:
Double glass with thermal protective covering, thermal permeability degree U = 1,6 W/m² and
total energy permeability degree g = 0,70 sun protective material inside, closed

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Rv = Visual Reflection

Av = Visual Absortion

Ts = Solar Transmission

Rs = Solar Reflection

As = Solar Absortion

OF = Openess Factor

Sunlux® Eco-Screen



COLOUR	Tv	Rv	Av	Ts	Rs	As	COMPOSITION	FR	THICKNESS	WEIGHT /m²	OF	gt	Fc	LIGHT FASTNESS (DIN EN ISO 105 B02)
10.001 Chalk	48%	46%	6%	51%	46%	3%	100% PLA	B1	0,45 mm	175 gr	3%	0,47	0,67	<6
10.013 Marble	41%	32%	27%	43%	34%	23%	100% PLA	B1	0,45 mm	175 gr	3%	0,55	0,79	<6
10.003 Slate	28%	22%	50%	33%	26%	41%	100% PLA	B1	0,45 mm	175 gr	3%	0,52	0,74	<6
10.004 Flint	22%	17%	61%	26%	21%	53%	100% PLA	B1	0,45 mm	175 gr	3%	0,57	0,81	<6
10.009 Sandstone	22%	21%	57%	26%	23%	51%	100% PLA	B1	0,45 mm	175 gr	3%	0,56	0,8	<6
10.034 Basalt	15%	11%	74%	18%	13%	69%	100% PLA	B1	0,45 mm	175 gr	3%	0,6	0,85	<6
10.021 Granite	8%	7%	85%	11%	9%	80%	100% PLA	B1	0,45 mm	175 gr	3%	0,61	0,87	<6
10.038 Nero	3%	3%	94%	4%	3%	93%	100% PLA	B1	0,45 mm	175 gr	3%	0,63	0,9	<6

Fc and gt results are valid for the following presumptions in accordance with DIN EN 13363-1:
Double glass with thermal protective covering, thermal permeability degree U = 1,6 W/m² and total energy permeability degree g = 0,70 sun protective material inside, closed

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Rs = Solar Reflection

As = Solar Absortion

OF = Openess Factor

Sunlux® Simply Blockout



TECHNICAL SPECIFICATIONS		UNITY		STANDARD	RESULT
composition				Polyester 66% - PUR 34%	
openness factor		%		NBN EN 410	0%
weight		g/m ²		NF EN 12127	310
thickness		mm		ISO 2286-3	0,25
colour fastness to artificial light			front	ISO 105 B02	6
			back		>7
tear strength	original	daN	warp	ISO 4674-1 method 2	1,65
			weft		3,1
elongation up to break	original	% daN/5cm	warp	ISO 1421	26,5
			weft		30
breaking strength	original	daN/5cm	warp	ISO 1421	125
			weft		165
elongation up to break	after colour fastness to artificial light	% daN/5cm	warp	ISO 1421	23,5
			weft		30
breaking strength	after colour fastness to artificial light	daN/5cm	warp	ISO 1421	120
			weft		160
tear strength	after climatic chamber -30°C	daN	warp	ISO 4674-1 method 2	1,5
			weft		2,9
elongation up to break	after climatic chamber -30°C	% daN/5cm	warp	ISO 1421	29,5
			weft		33
breaking strength	after climatic chamber -30°C	daN/5cm	warp	ISO 1421	135
			weft		170
tear strength	after climatic chamber +70°C	daN	warp	ISO 4674-1 method 2	1,65
			weft		3,2
elongation up to break	after climatic chamber +70°C	% daN/5cm	warp	ISO 1421	28
			weft		28,5
breaking strength	after climatic chamber +70°C	daN/5cm	warp	ISO 1421	130
			weft		160
fire classification	France			NF P92-503	M1
	Italy			UNI 9177	Class 1
	Germany			DIN 4102	B1
	UK			BS 5867	C
	USA			NFPA 701	FR
	Spain			UNE EN 13773-2003	Class 1
roll length			30 m		
cleaning			with soapy water		
confection			by heat, high frequency or ultrasonic welding		

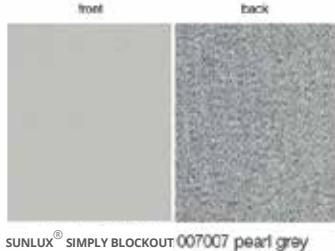
These properties are given as indicative and don't have any contractual value

Sunlux® Simply Blockout

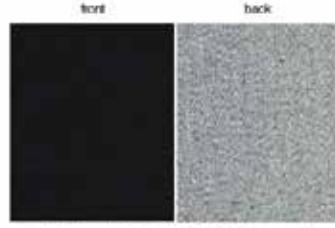


STANDARD WIDTHS

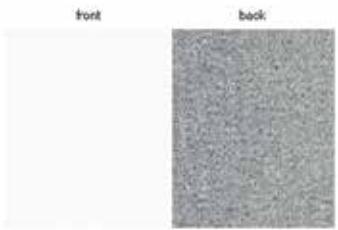
COLOURS & REFERENCES



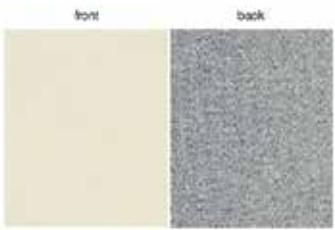
SUNLUX® SIMPLY BLOCKOUT 007007 pearl grey



SUNLUX® SIMPLY BLOCKOUT 010010 charcoal



SUNLUX® SIMPLY BLOCKOUT 002002 white



SUNLUX® SIMPLY BLOCKOUT 015015 linen

SUNLUX® SIMPLY BLOCKOUT	260 cm
002002 white	•
015015 linen	•
008008 sand	•
007007 pearl grey	•
010010 charcoal	•



SUNLUX® SIMPLY BLOCKOUT 008008 sand

SOLAR ENERGETIC PROPERTIES

references	colours	SOLAR ENERGETIC PROPERTIES										VISUAL PROPERTIES	
		FABRIC			FABRIC + GLAZING				INTERIOR				
					Glazing A - Gv = 0,85 - U = 5,8	Glazing B - Gv = 0,76 - U = 2,9	Glazing C - Gv = 0,59 - U = 1,2	Glazing D - Gv = 0,32 - U = 1,1	G-factor = total solar energy transmittance				
		front	back	As = Solar Absorptance %	Rs = Solar Reflectance %	Ts = Solar Transmittance %	Glazing A - Gv = 0,85 - U = 5,8	Glazing B - Gv = 0,76 - U = 2,9	Glazing C - Gv = 0,59 - U = 1,2	Glazing D - Gv = 0,32 - U = 1,1	Tv = Visible Light Transmittance %	Tuv = UV Transmittance %	
002002	white			front	31,0	69,0	0,0	0,31	0,34	0,34	0,25	0,0	0,0
				back	54,3	45,7	0,0	0,45	0,46	0,42	0,27	0,0	0,0
015015	linen			front	37,7	62,3	0,0	0,35	0,37	0,36	0,25	0,0	0,0
				back	51,2	48,8	0,0	0,43	0,44	0,41	0,26	0,0	0,0
008008	sand			front	44,6	55,4	0,0	0,39	0,41	0,39	0,26	0,0	0,0
				back	51,8	48,2	0,0	0,43	0,45	0,41	0,26	0,0	0,0
007007	pearl grey			front	55,5	44,5	0,0	0,45	0,47	0,42	0,27	0,0	0,0
				back	49,6	50,4	0,0	0,42	0,44	0,40	0,26	0,0	0,0
010010	charcoal			front	95,5	4,5	0,0	0,69	0,67	0,55	0,30	0,0	0,0
				back	50,4	49,6	0,0	0,42	0,44	0,41	0,26	0,0	0,0

GLAZING A = clear single glazing 4 mm | Gv = 0,85

GLAZING B = clear double glazing (4/12/4), space filled with air | Gv = 0,76

GLAZING C = double glazing (4/16/4), with a low emissivity coating in position 3, space filled with argon | Gv = 0,59

GLAZING D = reflective double glazing (4/16/4), with a low emissivity coating in position 2, space filled with argon | Gv = 0,32

Sunlux® Thermo Blockout



COLOUR	Tv	Rv	Av	Ts	Rs	As	COMPOSITION	FR	THICKNESS	WEIGHT /m²	OF	gt	Fc	LIGHT FASTNESS (DIN EN ISO 105 B02)
72.111 Snow	0%	79%	21%	0%	65%	35%	PES, coated	B1	0,37 mm	305 gr	0%	0,36	0,52	<6
72.113 Magnesium	0%	51%	49%	0%	44%	56%	PES, coated	B1	0,37 mm	305 gr	0%	0,45	0,65	<6
72.103 Steel	0%	36%	64%	0%	32%	68%	PES, coated	B1	0,37 mm	305 gr	0%	0,5	0,72	<6
72.130 Nickel	0%	22%	78%	0%	20%	80%	PES, coated	B1	0,37 mm	305 gr	0%	0,56	0,8	<6
72.132 Platinum	0%	25%	75%	0%	23%	77%	PES, coated	B1	0,37 mm	305 gr	0%	0,54	0,78	<6
72.134 Titanium	0%	20%	80%	0%	17%	83%	PES, coated	B1	0,37 mm	305 gr	0%	0,57	0,82	<6
72.136 Copper	0%	11%	89%	0%	10%	90%	PES, coated	B1	0,37 mm	305 gr	0%	0,6	0,86	<6
72.138 Nero	0%	6%	94%	0%	5%	95%	PES, coated	B1	0,37 mm	305 gr	0%	0,62	0,89	<6

Fc and gt results are valid for the following presumptions in accordance with DIN EN 13363-1:
Double glass with thermal protective covering, thermal permeability degree U = 1,6 W/m² and total energy permeability degree g = 0,70 sun protective material inside, closed

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

Tv = Visual Transmission

Rv = Visual Reflection

Av = Visual Absortion

Ts = Solar Transmission

Rs = Solar Reflection

As = Solar Absortion

OF = Openess Factor