



More than meets the eye.

Guide me

MORE THAN MEETS THE EYE

Something that at first glance may seem fairly everyday, might go on to surprise you. This is why we would like to take you on our journey, to give you a look behind the scenes and make you an integral part of our quality label. Remember - this 'guide me' will make sure that your view of Helioscreen and your knowledge of screen fabrics will **never be the same again.**

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WELCOME

HELLO

The art of communication is making sure you are understood. We have chosen English for our documentation. Please contact us, if anything might be unclear. We will help you in any way we can.

Kommunikasjonens kunst er å sikre at du blir forstått.

Vi har valgt engelsk for vår dokumentasjon. Vennligst kontakt oss om noe skulle være uklart. Vi er her for å hjelpe deg.

Kommunikationens kunst sikrer at du bliver forstået.

Vi har valgt engelsk i vores dokumentation. Kontakt os venligst, hvis noget er uklart. Vi vil hjælpe dig på bedst mulig måde.

De kunst van communicatie is ervoor zorgen dat u begrepen wordt.

We hebben voor Engels gekozen in onze documentatie. Contacteer ons gerust mocht iets niet duidelijk zijn. We helpen u op elke mogelijke manier verder.

El arte de la comunicación es garantizar que se nos entienda.

Hemos elegido el inglés para nuestra documentación. Por favor, contacta con nosotros si hay algo que desees aclarar. Te ayudaremos en todo lo que sea posible.

A arte de comunicar é ter a certeza que somos compreendidos.

Decidimos escolher o inglês para a nossa documentação. Por favor, contacte-nos caso algo não seja claro. Ajudá-lo-emos no que seja possível.

Sztuka komunikacji opiera się na pewności, że się rozumiemy.

Do naszej dokumentacji wybraliśmy język angielski, ale prosimy, dajcie nam znać, jeśli cokolwiek będzie niejasne. Zrobimy co w naszej mocy, aby Wam pomóc.

Die Kunst der Kommunikation ist es, sicherzustellen, jederzeit verstanden zu werden.

Wir gestalten unsere Informationsmaterialien in Englisch. Bitte kontaktieren Sie uns, sollte etwas unklar sein. Wir werden uns sofort darum kümmern.

L'arte della comunicazione è assicurarsi di essere capiti.

Abbiamo scelto l'inglese per la nostra documentazione. Non esitate a contattarci per qualsiasi chiarimento. Saremo lieti di potervi essere di aiuto.

Искусство общения состоит в достижении понимания.

Мы выбрали английский язык для документации. Пожалуйста, свяжитесь с нами, если что-нибудь неясно. Мы сделаем всё, чтобы помочь Вам.

İletişim sanatı, anlaşıldığının garantisidir.

Dökümanlarımızın İngilizce olmasını tercih ettik. Anlaşılmayan konularda lütfen iletişime geçiniz, elimizden geldiğince yardımcı olmaya çalışacağız.

沟通的要义在于有效的理解。

如果您在阅读此份英文资料时，存有任何疑问请与我们联系，我们将竭诚为您解答。

十分ご理解いただくために。

本力タログ製作では英語を選びましたが、万一不明な点がございましたら、お気軽にお問い合わせください。

فن الاتصال هو التأكد من أنك مفهوم .

وقد اخترنا اللغة الإنجليزية لوثائقنا. يرجى الاتصال بنا، إذا كان هناك أي شيء غير واضح. سوف نساعدك في أي طريقة ممكنة.



ABOUT HELIOSCREEN

INTRO Helioscreen has built up a global reputation as a developer and manufacturer of top quality fiberglass screen fabrics. The company has become a trendsetter when it comes to innovative, functional sun protection fabric for professional, commercial and residential environments.

Whether it is office spaces, public buildings, hotels, showrooms or private residences, Helioscreen has the fabric, expertise and experience required to meet every functional and aesthetic need for your project.



Helioscreen participates in the European Solar Shading Database – ES-SDA: <https://es-so-database.com>. An initiative to collect credible, trustworthy data about different types of solar shading. All data are checked by accredited laboratories and reviewed by our peers. You can find the ES-SDA logo next to the fabric colors that are included in the database at the publishing of this Guide Me. We will keep adding fabric to the database. Check out ES-SDA and our website for the latest information.





Quality is not expensive,
it is priceless.



VALUES



Helioscreen
fiberglass

Helioscreen favors fiberglass yarns in order to guarantee the **highest levels of quality**. Fiberglass yarn for screen fabrics consists of twisted glass filaments, covered by a PVC coating. A combination that has **important advantages**.

We also developed a **special, unique production system** ensuring that the coated fiberglass yarn can be optimally processed and applied.



Dynamic stability
weaving

Helioscreen's R&D department has a number of **highly-qualified engineers** who create technical innovations and concepts for the company. This team has accomplished a number of **unique innovations**, including our **own fabric technology**: Dynamic Stability Weaving or DSW.

DSW means that fabrics are woven in a **straighter, more stable way**. Making them ideal for a range of uses, including highly demanding applications. We apply this unique production formula to every roll of fabric we manufacture. This helps us guaranteeing the **best quality at all times**.



Preorder
planning

Because Helioscreen knows the market for its products inside and out, the company is more than a supplier, it is also an **advisor**. This means that you can make elaborate enquiries relating to your purchase and draw on all the expertise and knowledge we have accumulated over the last few decades.

With proactive pre-order planning we can give our key accounts **delivery reliability**. We consult you before the season starts and together, work out your annual requirement. From this starting point, we can determine the right quantity, the desired color and width, and have your fabric ready for dispatch right on time. This proactive collaboration **significantly saves you stress and money**. You do not have to build up a large inventory and can plan and follow up your fabric requirements to the finest detail.

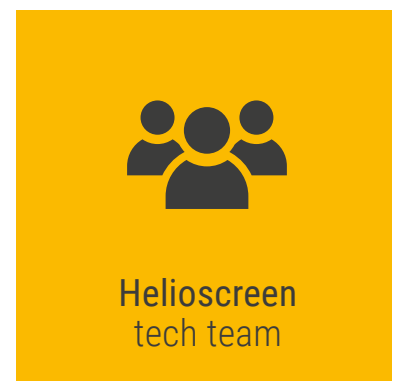
Helioscreen not only supplies top quality products, it also provides **top quality service**. Every day and at every occasion, our customer service takes the opportunity to look beyond your query to proactively assist you every step of the way. Our people love their job and our products, and that is reflected in everything we do!

You can also consult our Helioscreen **Area Sales Managers**. Not only do they know everything about fabric, these experts know like no other which integration options exist and how best to apply them.



Helioscreen Tech Support provides four crucial services: **The E-team, LightTool, ESBO** and the **Helioscreen Ambassadors**.

- **The E-team** draws up the perfect solution to your issue. They make comparative simulations, analyse data and provide you with the right support. You will receive figures and data, in clear and straightforward language.
- **LightTool** is a software program that can easily create a light transmission simulation for you. You can use this program yourself, or if you prefer, rely on the support of the E-team.
- **ESBO** is a tool that creates a simulation of heat penetration and indicates how much energy you could save.
- **The Helioscreen Ambassadors** are our partners across the globe. They know all the benefits of our screens and set out in detail what impact they can have. They can also provide you with the right advice about the fabric you need for your application.

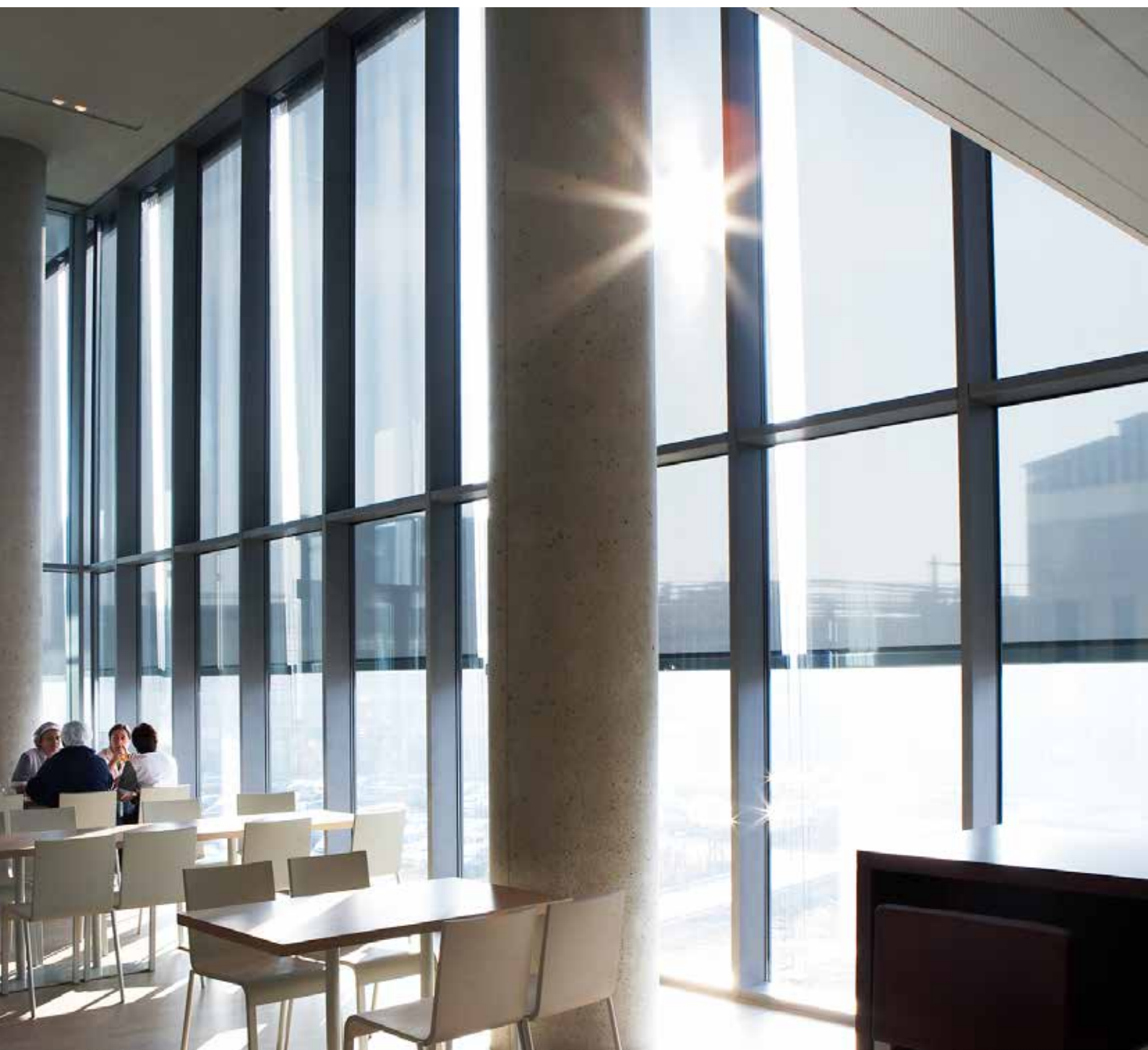


LightTool® | Simulate your light control

ESBO

For a better Performance in Thermal Comfort

ESBO makes it possible to calculate the approximate energy gains you will enjoy after installing blinds with Helioscreen fabric. The most current fabric and climate data from locations all over the world, enable us to produce the most accurate simulations. An elaborated report containing graphs and calculation results, makes it possible to compare various scenarios and helps you in making the right decision.



An example of a calculation for exterior:

OFFICE

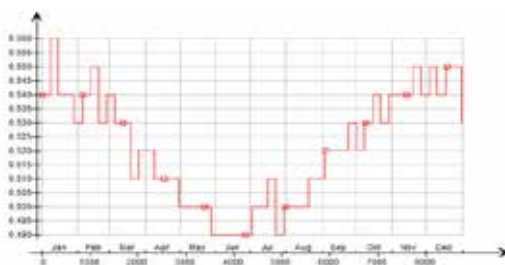
Floor area	9.12 m ²
Envelope area	6.48 m ²
Window area	3.239 m ²
Volume	24.62 m ³
Envelope area per Volume	0.2632 m ² /m ³

WINDOW

Size	1610 x 2012 mm, 3.2 m ² (incl. frame)
Glazing	Glazing-C_EN14501 [U=1.24, g=0.59, Tvis=0.72]

Interior solutions	No shading	Sergé 108101	Sergé 108118	Sergé 117101
No. of hours over 25 °C*	652.2	0.0	0.0	0.0
No. of hours over 27 °C*	0.0	0.0	0.0	0.0
* Operative temperature, i.e. experienced temperature (incl. thermal radiation)				
g for system (ISO15099)	0.59	0.06	0.06	0.07
g for glazing (ISO15099)	0.59	0.59	0.59	0.59

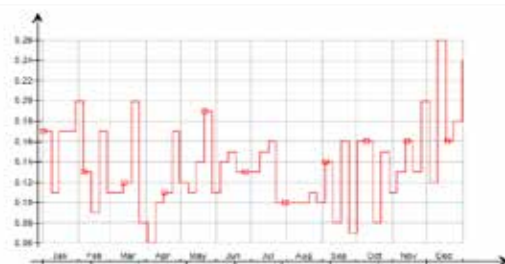
Simulated g-value for glazing-shading system during the design day. Weighted daily average with respect to incident radiation intensity.



annual g system - no shading



annual g system - Sergé 108101



annual g system - Sergé 118108



annual g system - Sergé 117101

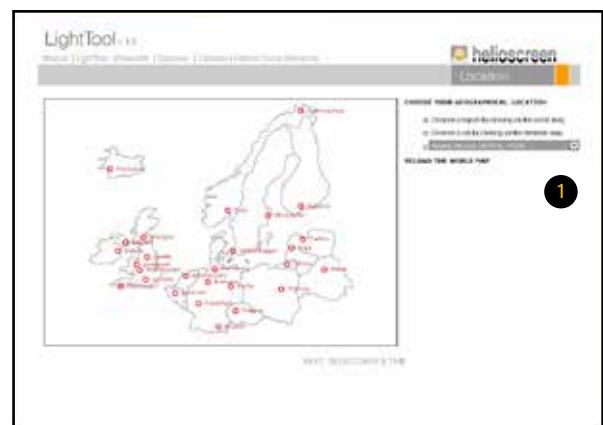
If you would like a free simulation (one simulation per project) just send an e-mail to marketing@helioscreen.com.

LIGHTTOOL®

For a better Performance in Visual Comfort

Helioscreen has designed and developed an intelligent software program, called LightTool®, which allows to make daylight simulations in an office environment. This valuable tool will help you in choosing an appropriate fabric and solar control system for the office environment.

In a few steps LightTool® leads you to the right choice:



- 1 Choose the geographical location
- 2 Select the orientation of the facade
- 3 Select the date and time
- 4 Select the percentage of glazing in the facade
- 5 Select your shading strategy
- 6 Select the weather condition
- 7 Now you can go to single view and create your report

You can make a simulation for several situations, for example:



Without solar shading

With Star 3% - 118150 - dusk

With Natte 2115 - 150116 - desert

Simulation for Santiago de Chile	Average illumination at 1 m	Luminance ratio screen/reflection
Without solar shading	3138 Lux	1.6 to 1
With solar shading: Star 3% - 118150	418 Lux	5.2 to 1
With solar shading: Natte 2115 - 150116	975 Lux	2.8 to 1

Visual comfort is available when:

- The contrast levels on different surfaces inside the office are mastered.
- Sufficient light is available, preferably natural daylight.
Illumination levels in between 500 and 1500 lux are ideal. In the above example the column 'Average illumination at 1 m' shows that Natte 2115 - 150116 is with 975 lux within the ideal range to provide sufficient daylight.
- There are no annoying reflections in the computer screen.
The luminance ratio (in Cd/m²) of the computer screen and the daylight falling on the computer screen should be minimum 3 to 1 or higher. In the above example the 'Luminance ratio screen/reflection' shows that Star 3% - 118150 provides the best result with a ratio of 5.2 to 1.

If you would like a free LightTool® simulation (one simulation per project) just go to www.helioscreen.com/calculation.php and fill out the form.

GET TO KNOW ME

DISCOVER ME, SHOW ME, GUIDE ME, TRUST ME, ...

get to know me inside and out





SHOW ME | Our 'Show me' presentation will help you communicating the benefits of screen fabrics. Step by step it reveals the numerous advantages of screen fabrics. The 'Show Me' is modular and can be customized to your own needs and personalized with your own brand name.

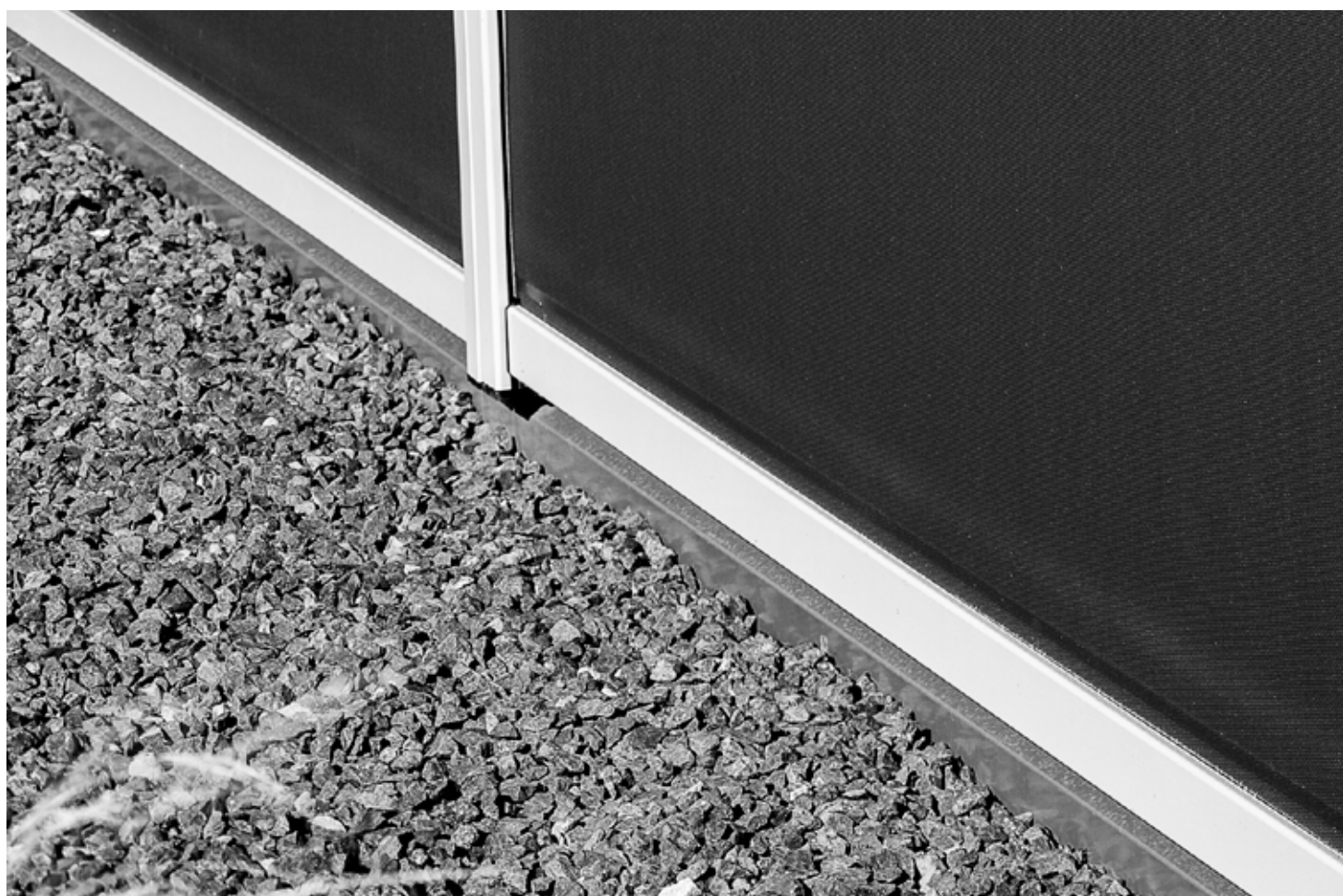
DISCOVER ME | Ask for our 'Discover me'! A beautifully designed sample box, containing sample swatches of the complete range of Helioscreen fabrics.

Each swatch provides a complete color overview per fabric range. All swatches are also separately available. If you require it, these sample swatches can be branded with your company name or company logo and adjusted to your needs



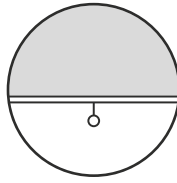
FABRICS OVERVIEW

FABRICS	FABRIC CODE	SOLAR SHADING	
		EXTERIOR	INTERIOR
Exterior			
Sergé 3%	WS03A	●	●
Sergé 1%	WK01A	●	●
Staccato	WL05A	●	●
Scala	WP05A	●	●
Print on screen		●	●

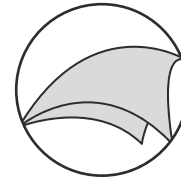




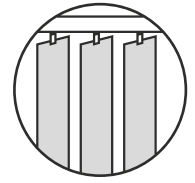
Signage



Solar shading

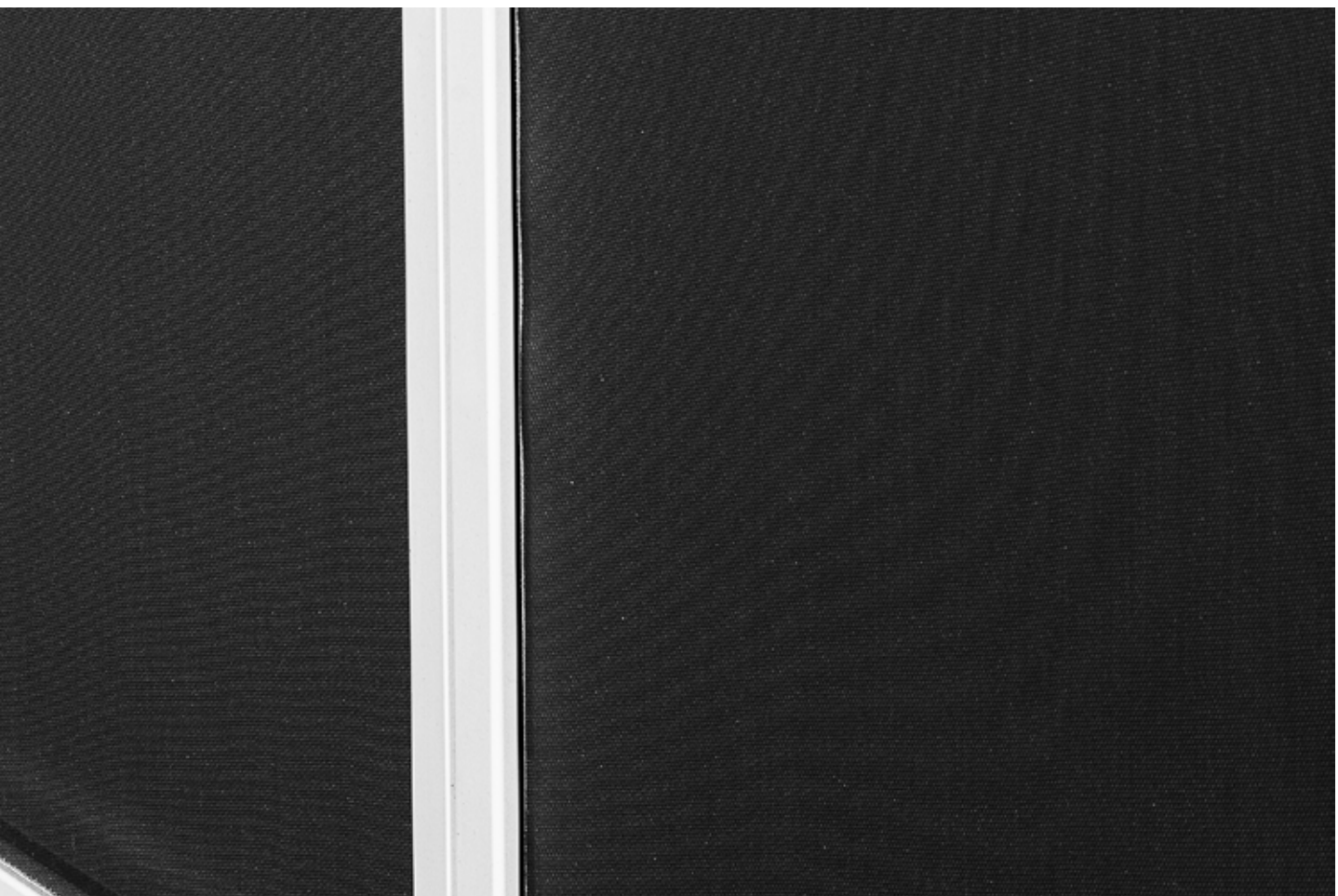


Tensile structures



Vertical vanes

OPENNESS FACTOR	STANDARD WIDTHS (IN MM) TOLERANCE: -0%, +5%	COLORS	ROLL LENGTH (NOMINALLY)
3%	1600/1800/2050/2500/2850/3200 depending on color (see p. 29)	31	50 m / 2850 mm: 40 m 3200 mm: 33 m
1%	1800/2500/2850	10	50 m / 2850 mm: 40 m
5%	2500	6	30 m
5%	2500	3	30 m



SOLAR AND LUMINOUS CHARACTERISTICS

As Green Building Assessment methods like BREEAM and LEED gain importance, knowledge of the solar and luminous characteristics of sunscreen fabrics becomes imperative. All figures provided in this Guide are measured and calculated by accredited laboratories according to the latest European standards and will tell you exactly how efficient our fabrics are.

EN 410

EN 410 (1998): Defines how to make spectral measurements on fabrics and how to calculate the solar transmittance (T_s) and solar reflectance (R_s) values. The solar transmittance and reflectance values are required for the calculation of the solar factor "g".

G-VALUE CALCULATION

EN ISO 52022-1 (2017): This standard specifies the simplified method for the calculation of the solar factor "g". The solar factor or g-value is the total solar energy transmittance whereas "gtot" is the solar factor of the combination of glazing and solar protection device.

VISUAL AND THERMAL COMFORT

EN 14501 (2005)*: Performance characteristics and classification of a solar protection device or roller shutter with regard to visual and thermal comfort. The standard defines the technical characteristics of 4 typical glazings (A,B,C,D) for the calculation of the "gtot" value and classifies the thermal and visual comfort.

** At the publication of this Guide Me the EN 14501 was under revision.
Please check our website for the latest values.*

Glazing	U (W/m ² K)	g	T _s	R _s	R _s '
A	5,8	0,85	0,83	0,08	0,08
B	2,9	0,76	0,69	0,14	0,14
C	1,2	0,59	0,49	0,29	0,27
D	1,1	0,32	0,27	0,29	0,38

If you need figures for other glazing types than the ones above, please do not hesitate to contact Helioscreen for a precise calculation.

Influence on thermal and visual comfort

CLASS	0	1	2	3	4
	Very little effect	Little effect	Moderate effect	Good effect	Very good effect

Total solar energy transmittance g_{tot} - Classification

CLASS	0	1	2	3	4
g _{tot}	g _{tot} ≥ 0.50	0.35 ≤ g _{tot} < 0.50	0.15 ≤ g _{tot} < 0.35	0.10 ≤ g _{tot} < 0.15	g _{tot} < 0.1

Glare Control

Glare control is characterized by:

- The capacity of the solar protection device to control the luminance level of openings and to reduce the luminance contrast between different zones within the field of vision.
- The capacity of the solar protection device to prevent disturbing reflection on visual display due to the luminance of the window and the surrounding surfaces.

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.

Night Privacy

Night privacy is the capacity of a blind to protect persons, at night in normal light conditions from external view.

Glare control - Classification

Tvdir	Tvdiff			
	< 2	2 ≤ / < 4	4 ≤ / < 8	≥ 8
> 10	0	0	0	0
5 < / ≤ 10	1	1	0	0
≤ 5	3	2	1	1
= 0	4	3	2	2

Visual contact with the outside - Classification

Tvdir	Tvdiff		
	0 < / ≤ 4	4 < / ≤ 15	> 15
> 10	4	3	2
5 < / ≤ 10	3	2	1
≤ 5	2	1	0
= 0	0	0	0

Night privacy - Classification

Tvdir	Tvdiff		
	0 < / ≤ 4	4 < / ≤ 15	> 15
> 10	0	0	0
5 < / ≤ 10	1	1	1
≤ 5	2	2	2
= 0	4	3	2

Daylight utilization - Classification

CLASS	0	1	2	3	4
Tvdif-h	Tvdif-h < 2	2 ≤ Tvdif-h < 10	10 ≤ Tvdif-h < 25	20 ≤ Tvdif-h < 40	Tvdif-h ≥ 40

Daylight utilization

Daylight utilization is characterized by:

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

Daylight utilization is quantified by the parameter Tvdiff-h, the diffuse hemispherical transmittance.

A BETTER ECOLOGICAL BALANCE

Helioscreen fiberglass screen fabric is an environmentally friendly solution for your sun shading demands. Fiberglass is a natural mineral with unique mechanical features that make it very durable.

The weaving and the processing of the fabric do not consume a great deal of energy nor is there much waste produced. Fiberglass screen fabrics are completely recyclable.

The yarns we use are Oëkotex standard 100 certified and our fabrics are REACH compliant.

REACH

REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances), is a European community regulation on chemicals and their safe use. The purpose of REACH is to address the production and use of chemical substances, and their potential impacts on both human health and the environment. Ensuring that Helioscreen is compliant is a continuous process of evaluating and monitoring all aspects of the regulation. Although we are a so-called 'Downstream user' and have no registration obligations, we are always committed to take the necessary actions to comply with the REACH requirements.

Helioscreen fabrics help achieving Greener Buildings

BREEAM

Visual comfort is a key aspect in BREEAM, the world's leading and most widely used environmental assessment method for buildings. You can win several credits with our fabrics for daylighting, glare control and view out. The Dutch version of BREEAM even demands a glare control class of 3.

Our fabrics also contribute to thermal comfort and energy savings, important criteria as well.

LEED

LEED is the North American equivalent of BREEAM and stands for Leadership in Energy and Environmental Design. The goal is to encourage environmental awareness amongst government agencies, architects, engineers, developers and builders. The latest version of LEED is called LEED v4. LEED v4 takes a more performance-based approach to design, operations and maintenance that calls for measurable results throughout a project's life cycle.

Check our website for the latest news on BREEAM, LEED and the European norms and regulations.

BREEAM®



TECHNICAL SPECIFICATIONS FABRICS

EXTERIOR

Helioscreen exterior fabrics, for the best heat and glare protection



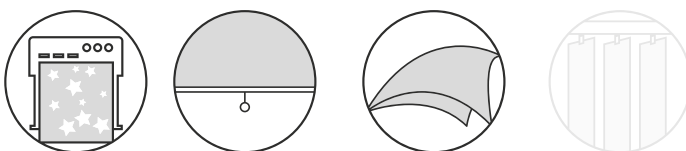
Sergé 3% OF 3%

WS03A

FABRIC CODE

Ultra wide range of proprietary woven screen fabrics. Unsurpassed flexibility, applicable in any kind of situation.

Can be used both exterior and interior.



Sergé 3% OF 3%

WS03A FABRIC CODE

Yarn

Technical specifications	Average Values	Standard
Titer	165 tex	ISO 1889 (2009)
Weighted composition	Glass 41.5%, PVC 58.5%	ISO 3801 (1977)
Diameter	0.38 mm	
Environment		Oekotex standard 100



Fabric

Type of fabric	PVC-coated fiberglass fabric
Weave pattern	twill weave
Widths	1600, 1800, 2050, 2500, 2850, 3200 mm depending on color (see overview on the right page)
Roll length (nominally)	50 m / 2850 mm: 40 m / 3200 mm: 33 m

Technical specifications	Average Values	Standard
Thickness	0.80 mm	ISO/DIS 5084.2 (1996)
Mass	544 g/m ²	ISO 3801 (1977)
Fire resistance	M1	NF P92-503 (1995)
	FR	NFPA 701 (2010)
	B1	DIN 4102 (1998)
	C-s3, d0	EN 13501-1 (2010)
Breaking strength	warp 310 daN, weft 230 daN	ISO 13934-1 (1999)
Elongation at break	warp 3.8%, weft 4.2%	ISO 13934-1 (1999)
Tear resistance	warp 10 daN, weft 13 daN	ISO 4674 part 1 method A (2003)
Acoustics	Qw: 0,10	ISO 354:2003
Colorfastness (white excluded)	7 scale of blue	ISO 105 B02 (1994)
Air porosity	1030 l/m ² /sec	ISO/DIS 9237 (1995)

Processing

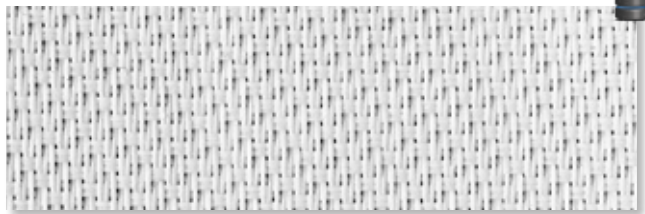
General - specifications are purely indicative and may not be considered as binding. Colors may vary from the samples shown.

Cutting	crush or ultrasonic; railroad or width out of roll width
Welding	thermal, HF, ultrasonic, sewing
Cleaning	remove dust from the fabric surface, then wipe gently with a humid soft sponge while using a mild detergent

Color	Color code	Name	1600 mm	1800 mm	2050 mm	2500 mm	2850 mm	3200 mm
	108101	grey-white *	●	●	●	●	●	●
	108108	grey *	●	●	●	●	●	●
	108112	grey-sand	●	●	●	●	●	●
	108118	grey-black *	●	●	●	●	●	●
	112101	sand-white	●	●	●	●	●	●
	112113	sand-bronze	●	●	●	●	●	●
	117101	pearl-white *	●	●	●	●	●	●
	117108	pearl-grey	●	●	●	●	●	●
	117117	pearl	●	●	●	●	●	●
	118113	black-bronze	●	●	●	●	●	●
	118118	black *	●	●	●	●	●	●
	101101	white	●	●	●	●	●	
	108111	grey-dark blue	●	●	●	●	●	
	112112	sand	●	●	●	●	●	
	113105	bronze-tangerine	●	●	●	●	●	
	113108	bronze-grey	●	●	●	●	●	
	113113	bronze	●	●	●	●	●	
	116101	linen-white	●	●	●	●	●	
	116116	linen	●	●	●	●	●	
	116122	linen-lichen	●	●	●	●	●	
	117116	pearl-linen	●	●	●	●	●	
	118316	gravel	●	●	●	●	●	
	108126	grey-caramel					●	
	108167	pacific					●	
	111111	dark blue					●	
	112103	sand-yellow					●	
	113115	bronze-lime					●	
	116108	linen-grey					●	
	118112	black-sand					●	
	118116	black-linen					●	
	118181	jamaica					●	

* Also available in OF 5%, widths 1800, 2500, 2850 mm, MOQ: 300 m

101101 white
Widths: 1600, 1800, 2050, 2500, 2850 mm



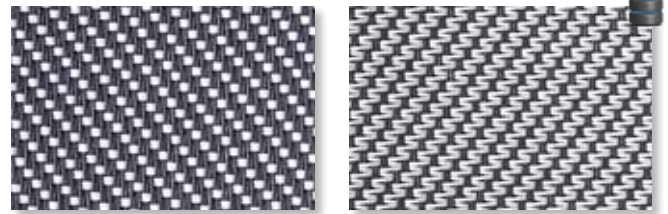
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	18.9	66.9	14.2	19	16.1	2.9	3.3	16.5	Class 1

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.2	0.35	0.18	0.36	0.14	0.35	0.09	0.25
Classes	2	2	2	1	3	1	4	2

108101 grey-white A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



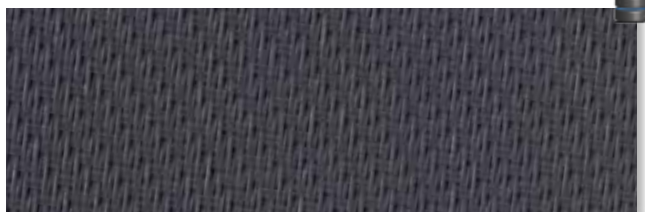
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.4	27.2	68.4	4.4	1.8	2.6	3	3.5	Class 3
B	4.4	38.9	56.7	4.4	1.8	2.6	3	3.5	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.18	0.56	0.14	0.56	0.09	0.48	0.08	0.28
A Classes	2	0	3	0	4	1	4	2
B Values	0.16	0.49	0.12	0.5	0.08	0.44	0.07	0.27
B Classes	2	1	3	1	4	1	4	2

108108 grey
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



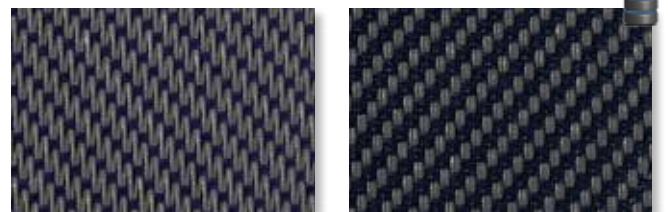
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	5.1	14.2	80.7	4.9	0.5	4.4	4.8	3.7	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.22	0.64	0.17	0.62	0.1	0.52	0.09	0.3
Classes	2	0	2	0	3	0	4	2

108111 grey-dark blue A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	3.6	16.8	79.6	2.9	0.4	2.5	2.9	2.2	Class 3
B	3.6	18.9	77.5	2.9	0.4	2.5	2.9	2.2	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.62	0.15	0.61	0.09	0.51	0.08	0.29
A Classes	2	0	2	0	4	0	4	2
B Values	0.2	0.61	0.15	0.6	0.09	0.51	0.08	0.29
B Classes	2	0	2	0	4	0	4	2

108112 grey-sand A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



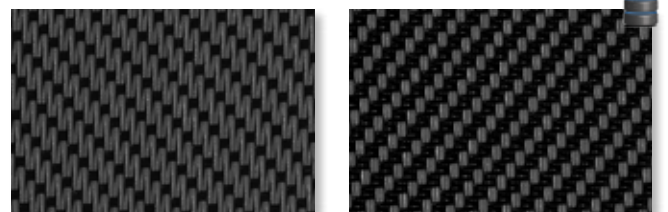
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.4	21.6	74	4.2	1	3.2	3.6	3.3	Class 3
B	4.4	27.2	68.4	4.2	1	3.2	3.6	3.3	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.59	0.15	0.59	0.09	0.5	0.08	0.29
A Classes	2	0	2	0	4	1	4	2
B Values	0.18	0.56	0.14	0.56	0.09	0.48	0.08	0.28
B Classes	2	0	3	0	4	1	4	2

108118 grey-black A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



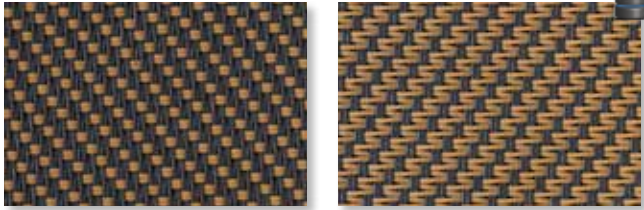
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	3.7	12.7	83.6	3.7	0.4	3.2	3.6	2.7	Class 3
B	3.7	9.6	86.7	3.7	0.4	3.2	3.6	2.7	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.21	0.64	0.16	0.63	0.1	0.53	0.09	0.3
A Classes	2	0	2	0	3	0	4	2
B Values	0.22	0.66	0.17	0.65	0.1	0.54	0.09	0.3
B Classes	2	0	2	0	3	0	4	2

108126 grey-caramel A / B
Width: 2850 mm



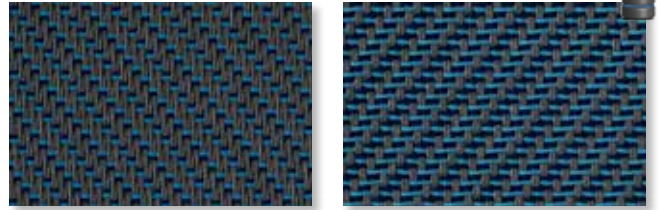
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	5	22.2	72.8	4.8	1.1	3.6	4	3.6	Class 3
B	5	28.9	66.1	4.8	1.1	3.6	4	3.6	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.59	0.15	0.58	0.1	0.5	0.08	0.29
A Classes	2	0	2	0	4	1	4	2
B Values	0.19	0.55	0.14	0.55	0.09	0.47	0.08	0.28
B Classes	2	0	3	0	4	1	4	2

108167 pacific A / B
Width: 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.8	18.8	76.4	4.1	0.6	3.5	3.9	3.1	Class 3
B	4.8	22.9	72.3	4.1	0.6	3.5	3.9	3.1	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.21	0.61	0.16	0.6	0.1	0.51	0.08	0.29
A Classes	2	0	2	0	3	0	4	2
B Values	0.2	0.58	0.15	0.58	0.1	0.49	0.08	0.29
B Classes	2	0	2	0	3	1	4	2

111111 dark blue
Width: 2850 mm



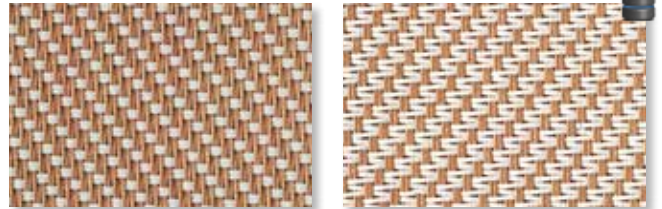
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	12.8	26.6	60.6	5.6	0.5	5.1	5.6	4.2	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.25	0.57	0.2	0.57	0.14	0.48	0.11	0.29
Classes	2	0	2	0	3	1	3	2

112101 sand-white A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



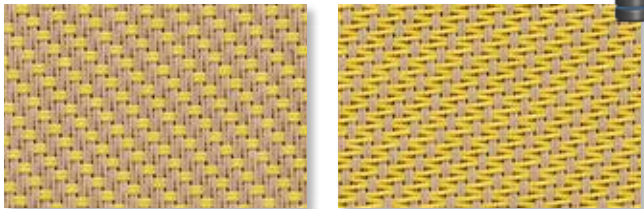
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	12.2	44.8	43	10.6	6	4.6	5.1	8.7	Class 1
B	12.2	50.6	37.2	10.6	6	4.6	5.1	8.7	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.47	0.17	0.47	0.12	0.42	0.09	0.27
A Classes	2	1	2	1	3	1	4	2
B Values	0.19	0.43	0.16	0.44	0.11	0.41	0.08	0.26
B Classes	2	1	2	1	3	1	4	2

112103 sand-yellow A / B
Width: 2850 mm



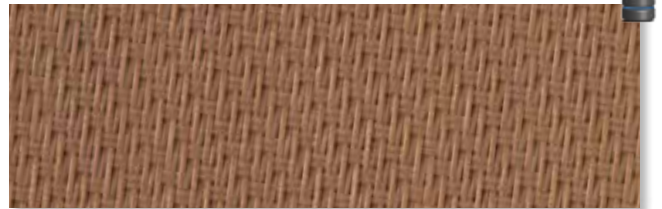
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	16.5	40.8	42.6	13.2	7.5	5.7	6.3	10.9	Class 0
B	16.5	42.4	41	13.2	7.5	5.7	6.3	10.9	Class 0

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.24	0.5	0.2	0.5	0.15	0.44	0.11	0.27
A Classes	2	1	2	1	3	1	3	2
B Values	0.24	0.49	0.2	0.49	0.15	0.43	0.11	0.27
B Classes	2	1	2	1	3	1	3	2

112112 sand
Widths: 1600, 1800, 2050, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	8.2	38.3	53.5	6.7	3.1	3.7	4.2	5.5	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.19	0.5	0.15	0.5	0.1	0.44	0.08	0.27
Classes	2	1	2	0	3	1	4	2

112113 sand-bronze A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



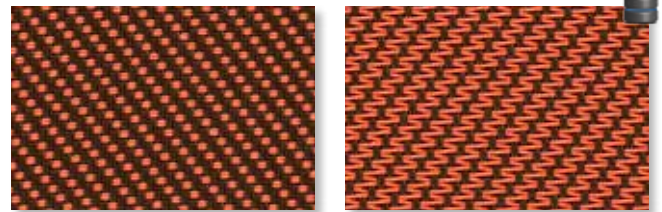
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.2	28.5	67.3	3.7	1.3	2.4	2.7	2.9	Class 3
B	4.2	20.3	75.5	3.7	1.3	2.4	2.7	2.9	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.18	0.55	0.14	0.55	0.09	0.48	0.07	0.28
A Classes	2	0	3	0	4	1	4	2
B Values	0.2	0.6	0.15	0.59	0.09	0.5	0.08	0.29
B Classes	2	0	2	0	4	0	4	2

113105 bronze-tangerine A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	7	14.4	78.7	5.2	1.2	4.1	4.5	4	Class 3
B	7	20.6	72.5	5.2	1.2	4.1	4.5	4	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.64	0.18	0.62	0.12	0.52	0.1	0.3
A Classes	2	0	2	0	3	0	4	2
B Values	0.22	0.6	0.17	0.59	0.11	0.5	0.09	0.29
B Classes	2	0	2	0	3	0	4	2

113108 bronze-grey A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



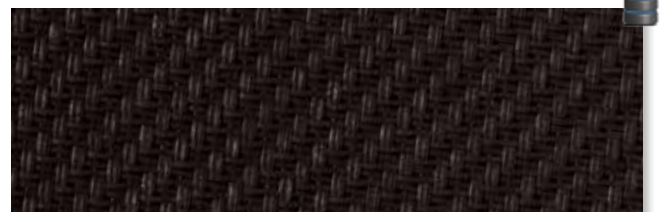
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	5.5	11.2	83.3	4.9	0.8	4.1	4.6	3.7	Class 3
B	5.5	14	80.5	4.9	0.8	4.1	4.6	3.7	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.65	0.17	0.64	0.11	0.53	0.09	0.3
A Classes	2	0	2	0	3	0	4	2
B Values	0.22	0.64	0.17	0.63	0.11	0.52	0.09	0.3
B Classes	2	0	2	0	3	0	4	2

113113 bronze
Widths: 1600, 1800, 2050, 2500, 2850 mm



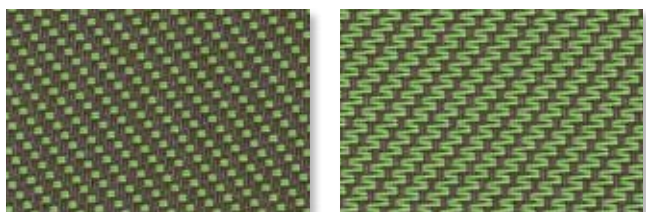
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.8	9.1	86.1	4.7	0.5	4.2	4.6	3.5	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.23	0.67	0.17	0.65	0.11	0.54	0.09	0.3
Classes	2	0	2	0	3	0	4	2

113115 bronze-lime A / B
Width: 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	7.1	14.0	79.0	6.6	1.6	5.1	5.5	5.1	Class 1
B	7.1	20.6	72.3	6.6	1.6	5.1	5.5	5.1	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.64	0.18	0.63	0.12	0.52	0.10	0.30
A Classes	2	0	2	0	3	0	3	2
B Values	0.22	0.60	0.17	0.59	0.11	0.50	0.09	0.29
B Classes	2	0	2	0	3	0	4	2

116101 linen-white A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



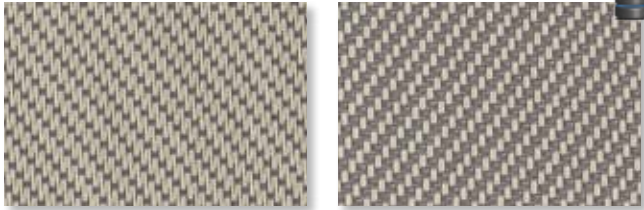
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	15.2	56.8	28	13.5	9.8	3.7	4.2	11.5	Class 1
B	15.2	58.9	25.9	13.5	9.8	3.7	4.2	11.5	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.4	0.17	0.41	0.13	0.39	0.09	0.26
A Classes	2	1	2	1	3	1	4	2
B Values	0.19	0.39	0.17	0.4	0.12	0.38	0.09	0.26
B Classes	2	1	2	1	3	1	4	2

116108 linen-grey A / B
Width: 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	12.2	39.4	48.4	9.7	5.1	4.6	5.1	7.9	Class 1
B	12.2	31.5	56.3	9.7	5.1	4.6	5.1	7.9	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.21	0.5	0.18	0.5	0.12	0.44	0.09	0.27
A Classes	2	1	2	1	3	1	4	2
B Values	0.23	0.54	0.19	0.54	0.13	0.47	0.1	0.28
B Classes	2	0	2	0	3	1	4	2

116116 linen
Widths: 1600, 1800, 2050, 2500, 2850 mm



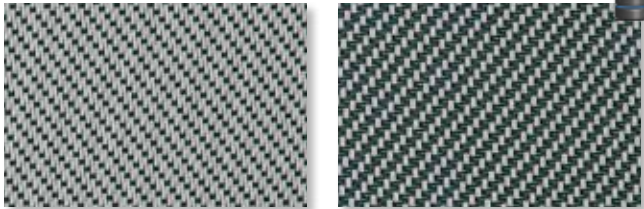
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	13.4	53.2	33.4	11	7.2	3.8	4.2	9.2	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.19	0.42	0.16	0.43	0.12	0.4	0.09	0.26
Classes	2	1	2	1	3	1	4	2

116122 linen-lichen A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



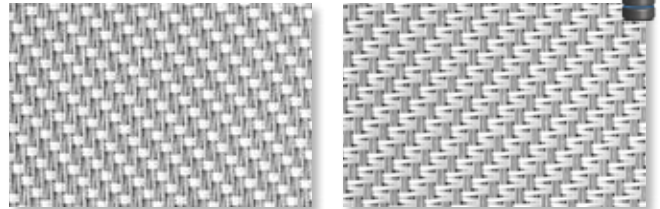
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	8	33.5	58.5	7.5	3.8	3.7	4.2	6.1	Class 2
B	8	21.3	70.7	7.5	3.8	3.7	4.2	6.1	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.2	0.53	0.16	0.53	0.1	0.46	0.08	0.28
A Classes	2	0	2	0	3	1	4	2
B Values	0.22	0.6	0.18	0.59	0.12	0.5	0.09	0.29
B Classes	2	0	2	0	3	1	4	2

117101 pearl-white A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



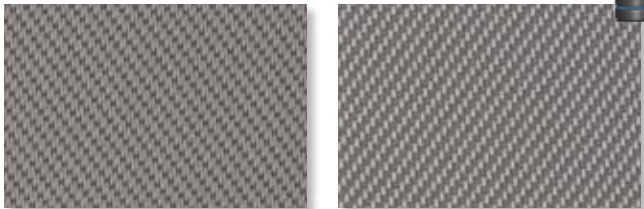
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	7.2	46.9	45.9	5.8	3.3	2.4	2.8	4.7	Class 2
B	7.2	53.5	39.3	5.8	3.3	2.4	2.8	4.7	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.16	0.45	0.13	0.46	0.09	0.42	0.07	0.27
A Classes	2	1	3	1	4	1	4	2
B Values	0.15	0.41	0.12	0.42	0.08	0.39	0.06	0.26
B Classes	3	1	3	1	4	1	4	2

117108 pearl-grey A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	11	29.8	59.2	9.1	4.3	4.8	5.4	7.4	Class 2
B	11	25.5	63.6	9.1	4.3	4.8	5.4	7.4	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.55	0.18	0.55	0.12	0.47	0.1	0.28
A Classes	2	0	2	0	3	1	4	2
B Values	0.23	0.58	0.19	0.57	0.13	0.49	0.1	0.29
B Classes	2	0	2	0	3	1	3	2

117116 pearl-linen A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm



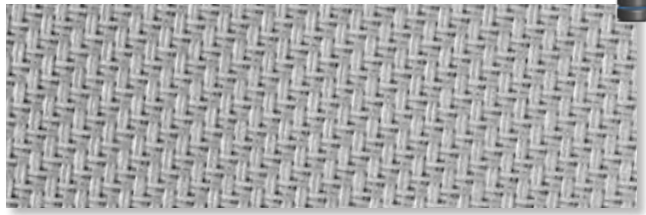
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	7.2	43	49.8	5.4	2.6	2.8	3.2	4.4	Class 2
B	7.2	46.7	46.1	5.4	2.6	2.8	3.2	4.4	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.17	0.47	0.14	0.48	0.09	0.43	0.07	0.27
A Classes	2	1	3	1	4	1	4	2
B Values	0.16	0.45	0.13	0.46	0.09	0.42	0.07	0.27
B Classes	2	1	3	1	4	1	4	2

117117 pearl
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.7	39.7	52.6	6	2.6	3.4	3.8	4.8	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.18	0.49	0.15	0.5	0.1	0.44	0.08	0.27
Classes	2	1	3	1	4	1	4	2

118112 black-sand A / B
Width: 2850 mm



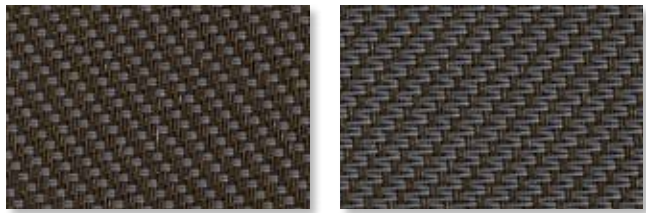
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.9	13.7	81.4	4.4	1.1	3.3	3.6	3.4	Class 3
B	4.9	21.2	73.9	4.4	1.1	3.3	3.6	3.4	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.22	0.64	0.17	0.63	0.1	0.52	0.09	0.3
A Classes	2	0	2	0	3	0	4	2
B Values	0.2	0.59	0.16	0.59	0.1	0.5	0.08	0.29
B Classes	2	0	2	0	4	1	4	2

118113 black-bronze A / B
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



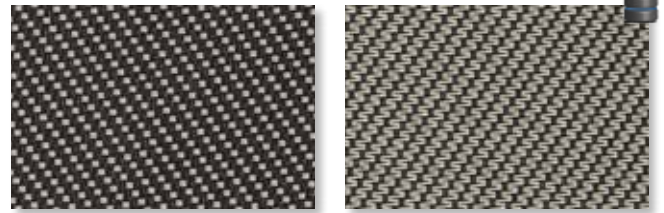
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	6.0	5.8	88.2	5.8	0.5	5.3	5.8	4.4	Class 1
B	6.0	6.2	87.9	5.8	0.5	5.3	5.8	4.4	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.24	0.69	0.19	0.67	0.12	0.55	0.10	0.30
A Classes	2	0	2	0	3	0	3	2
B Values	0.24	0.68	0.19	0.67	0.12	0.55	0.10	0.30
B Classes	2	0	2	0	3	0	3	2

118116 black-linen A / B
Width: 2850 mm



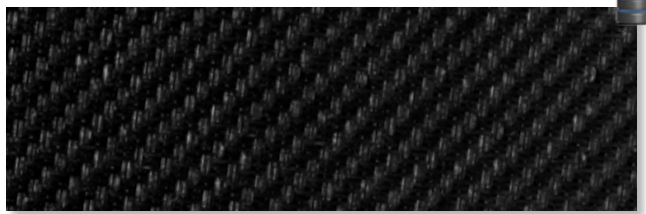
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	5.6	16.1	78.3	5.3	1.6	3.6	4	4.1	Class 3
B	5.6	26	68.4	5.3	1.6	3.6	4	4.1	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.22	0.63	0.17	0.61	0.11	0.52	0.09	0.29
A Classes	2	0	2	0	3	0	4	2
B Values	0.2	0.57	0.15	0.56	0.1	0.48	0.08	0.29
B Classes	2	0	2	0	3	1	4	2

118118 black
Widths: 1600, 1800, 2050, 2500, 2850, 3200 mm



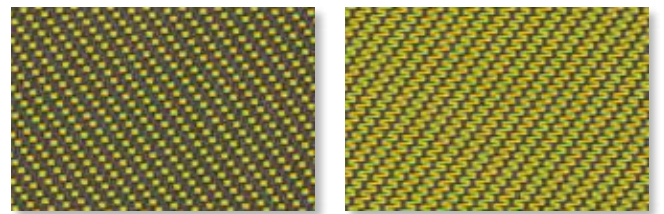
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	2.6	5.2	92.2	2.6	0.3	2.3	2.6	2	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.22	0.69	0.16	0.67	0.1	0.55	0.09	0.3
Classes	2	0	2	0	3	0	4	2

118181 jamaica A / B
Width: 2850 mm



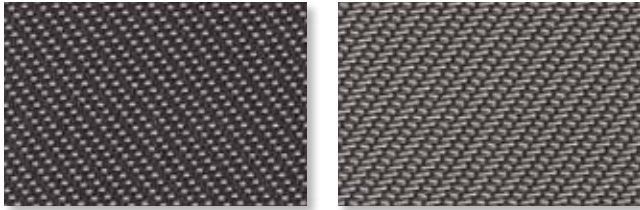
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	6.7	13.7	79.6	6.3	1.6	4.7	5	4.9	Class 3
B	6.7	21.7	71.5	6.3	1.6	4.7	5	4.9	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.64	0.18	0.63	0.11	0.52	0.09	0.3
A Classes	2	0	2	0	3	0	4	2
B Values	0.21	0.59	0.17	0.59	0.11	0.5	0.09	0.29
B Classes	2	0	2	0	3	1	4	2

118316 gravel A / B
Widths: 1600, 1800, 2050, 2500, 2850 mm

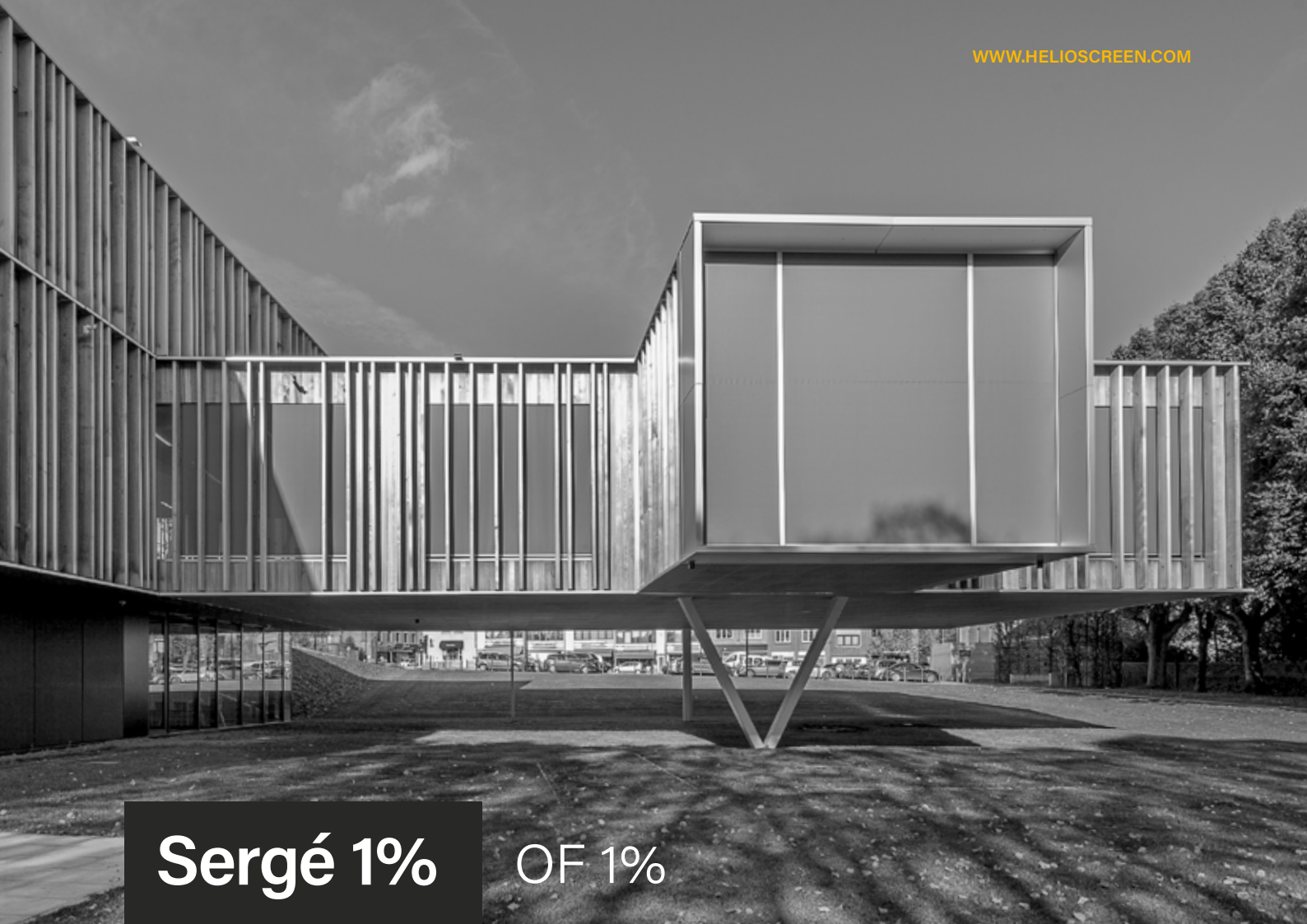


Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	5.8	11.9	82.4	5.5	1.1	4.4	4.8	4.2	Class 3
B	5.8	18.0	76.2	5.5	1.1	4.4	4.8	4.2	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.23	0.65	0.18	0.64	0.11	0.53	0.09	0.30
A Classes	2	0	2	0	3	0	4	2
B Values	0.21	0.61	0.17	0.60	0.11	0.51	0.09	0.29
B Classes	2	0	2	0	3	0	4	2

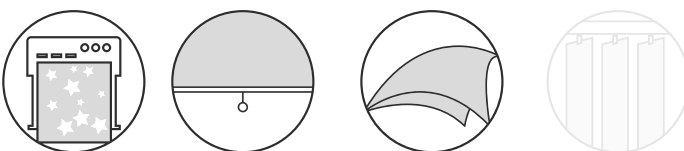


Sergé 1% OF 1%

WK01A FABRIC CODE

Screen with a small openness factor to protect even better against heat and glare. Thin and light for more designing possibilities. Very suitable for zip systems.

Can be used both exterior and interior.



Sergé 1% OF 1%

WK01A FABRIC CODE

Yarn

Technical specifications	Average Values	Standard
Titer	165 tex	ISO 1889 (2009)
Weighted composition	Glass 41.5%, PVC 58.5%	ISO 3801 (1977)
Diameter	0.38 mm	
Environment		Oekotex standard 100



Fabric

Type of fabric	PVC-coated fiberglass fabric
Weave pattern	twill weave
Widths	1800, 2500, 2850 mm other widths on demand
Roll length (nominally)	50 m / 2850 mm: 40 m

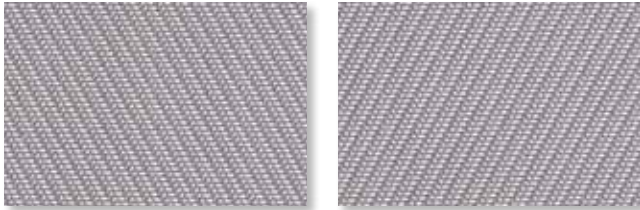
Technical specifications	Average Values	Standard
Thickness	0.60 mm	ISO/DIS 5084.2 (1996)
Mass	474 g/m ²	ISO 3801 (1977)
Fire resistance	M1 FR	NF P92-503 (1995) NFPA 701 (2010)
Breaking strength	warp 290 daN, weft 210 daN	ISO 13934-1 (1999)
Elongation at break	warp 6,2%, weft 4.4%	ISO 13934-1 (1999)
Tear resistance	warp 9,5 daN, weft 10 daN	ISO 4674 part 1 method A (2003)
Colorfastness (white excluded)	6 scale of blue	ISO 105 B02 (1994)
Air porosity	374 l/m ² /sec	ISO/DIS 9237 (1995)

Processing

General - specifications are purely indicative and may not be considered as binding. Colors may vary from the samples shown.

Cutting	crush or ultrasonic; railroad or width out of roll width
Welding	thermal, HF, ultrasonic, sewing
Cleaning	remove dust from the fabric surface, then wipe gently with a humid soft sponge while using a mild detergent

108101 grey-white A / B
Widths: 1800, 2500, 2850 mm



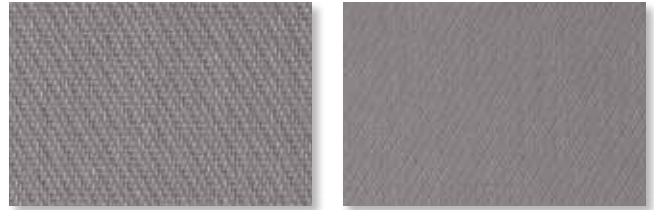
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	6.5	32.4	61.1	3.4	2.7	0.7	0.9	2.9	Class 2
B	6.5	32.3	61.2	3.4	2.7	0.7	0.9	2.9	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.19	0.53	0.15	0.53	0.10	0.46	0.08	0.28
A Classes	2	0	2	0	3	1	4	2
B Values	0.19	0.53	0.15	0.53	0.10	0.46	0.08	0.28
B Classes	2	0	2	0	3	1	4	2

108108 grey A / B
Widths: 1800, 2500, 2850 mm



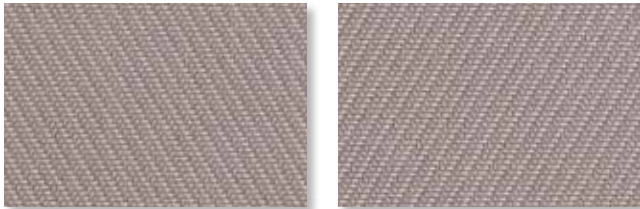
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	4.8	21.6	73.6	2.2	1.5	0.7	0.9	1.9	Class 3
B	4.8	21.6	73.6	2.2	1.5	0.7	0.9	1.9	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.59	0.15	0.59	0.10	0.50	0.08	0.29
A Classes	2	0	2	0	3	0	4	2
B Values	0.20	0.59	0.15	0.59	0.10	0.50	0.08	0.29
B Classes	2	0	2	0	3	0	4	2

108112 grey-sand A / B
Widths: 1800, 2500, 2850 mm



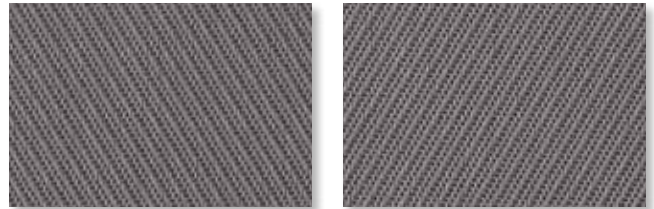
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	6.0	26.6	67.4	2.8	2.3	0.5	0.7	2.4	Class 2
B	6.0	26.4	67.6	2.8	2.3	0.5	0.7	2.4	Class 2

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.57	0.15	0.56	0.10	0.48	0.08	0.29
A Classes	2	0	2	0	3	1	4	2
B Values	0.20	0.57	0.15	0.57	0.10	0.48	0.08	0.29
B Classes	2	0	2	0	3	1	4	2

108118 grey-black A / B
Widths: 1800, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	2.9	16.0	81.1	1.5	1.1	0.4	0.6	1.3	Class 3
B	2.9	16.1	81.1	1.5	1.1	0.4	0.6	1.3	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.62	0.15	0.61	0.09	0.52	0.08	0.29
A Classes	2	0	2	0	4	0	4	2
B Values	0.20	0.62	0.15	0.62	0.09	0.52	0.08	0.29
B Classes	2	0	2	0	4	0	4	2

117101 pearl-white A / B
Widths: 1800, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	13.6	46.9	39.5	11.9	11.5	0.4	0.8	10.5	Class 1
B	13.6	47.2	39.3	11.9	11.5	0.4	0.8	10.5	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.21	0.46	0.17	0.46	0.12	0.42	0.09	0.27
A Classes	2	1	2	1	3	1	4	2
B Values	0.21	0.46	0.17	0.46	0.12	0.42	0.09	0.27
B Classes	2	1	2	1	3	1	4	2

117108 pearl-grey A / B
Widths: 1800, 2500, 2850 mm



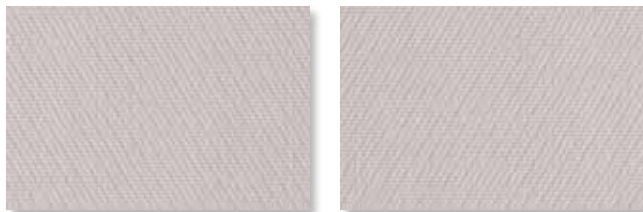
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	8.4	31.4	60.2	6.1	5.7	0.4	0.8	5.4	Class 1
B	8.4	31.5	60.1	6.1	5.7	0.4	0.8	5.4	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.54	0.16	0.54	0.11	0.47	0.09	0.28
A Classes	2	0	2	0	3	1	4	2
B Values	0.20	0.54	0.16	0.54	0.11	0.47	0.09	0.28
B Classes	2	0	2	0	3	1	4	2

117117 **pearl** A / B
Widths: 1800, 2500, 2850 mm



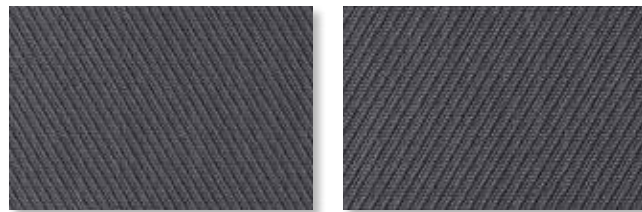
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	12.0	38.9	49.1	10.4	10.0	0.3	0.7	9.2	Class 1
B	12.0	38.9	49.1	10.4	10.0	0.3	0.7	9.2	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.21	0.50	0.18	0.50	0.12	0.44	0.09	0.27
A Classes	2	0	2	0	3	1	4	2
B Values	0.21	0.50	0.18	0.50	0.12	0.44	0.09	0.27
B Classes	2	0	2	0	3	1	4	2

118108 **black-grey** A / B
Widths: 1800, 2500, 2850 mm



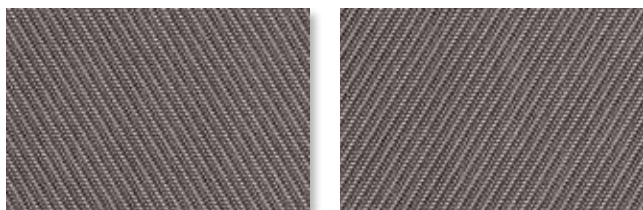
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	0.8	10.2	89.0	0.6	0.3	0.3	0.5	0.5	Class 3
B	0.8	10.1	89.1	0.6	0.3	0.3	0.5	0.5	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.65	0.14	0.64	0.08	0.53	0.08	0.30
A Classes	2	0	3	0	4	0	4	2
B Values	0.20	0.65	0.14	0.64	0.08	0.53	0.08	0.30
B Classes	2	0	3	0	4	0	4	2

118112 **black-sand** A / B
Widths: 1800, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	0.8	14.0	85.2	0.5	0.4	0.1	0.2	0.4	Class 3
B	0.8	14.0	85.2	0.5	0.4	0.1	0.2	0.4	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.19	0.63	0.14	0.62	0.08	0.52	0.07	0.30
A Classes	2	0	3	0	4	0	4	2
B Values	0.19	0.63	0.14	0.63	0.08	0.52	0.07	0.30
B Classes	2	0	3	0	4	0	4	2

118118 **black** A / B
Widths: 1800, 2500, 2850 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
A	0.4	6.69	92.9	0.3	0.2	0.2	0.3	0.3	Class 3
B	0.4	6.69	92.9	0.3	0.2	0.2	0.3	0.3	Class 3

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
A Values	0.20	0.67	0.15	0.66	0.08	0.55	0.08	0.30
A Classes	2	0	2	0	4	0	4	2
B Values	0.20	0.67	0.15	0.66	0.08	0.55	0.08	0.30
B Classes	2	0	2	0	4	0	4	2

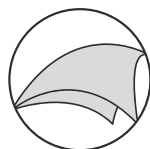
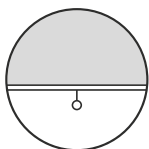
Staccato OF 5%

WL05A

FABRIC CODE

A sophisticated weave, combining bicolor yarns in warp and weft to create a natural look. Excellent for outside use.

Can be used both exterior and interior.



Staccato OF 5%

WL05A FABRIC CODE

Yarn

Technical specifications	Average Values	Standard
Titer	165 tex	ISO 1889 (2009)
Weighted composition	Glass 41%, PVC 59%	ISO 3801 (1977)
Diameter	0.39 mm	

Fabric

Type of fabric	PVC-coated fiberglass fabric
Weave pattern	twill weave
Widths	2500 mm
Roll length (nominally)	30 m

Technical specifications	Average Values	Standard
Thickness	0.58 mm	ISO/DIS 5084.2 (1996)
Mass	457 g/m ²	ISO 3801 (1977)
Fire resistance	M1 FR	NF P92-503 (1995) NFPA 701 (2010)
Breaking strength	warp 210 daN, weft 270 daN	ISO 13934-1 (1999)
Elongation at break	warp 5,4%, weft 5,2%	ISO 13934-1 (1999)
Tear resistance	warp 12 daN, weft 10 daN	ISO 4674 part 1 method A (2003)
Colorfastness (white excluded)	7-8 scale of blue	ISO 105 B02 (1994)
Air porosity	788 l/m ² /sec	ISO/DIS 9237 (1995)

Processing

General - specifications are purely indicative and may not be considered as binding. Colors may vary from the samples shown.

Cutting	crush or ultrasonic; railroad or width out of roll width
Welding	thermal, HF, ultrasonic, sewing
Cleaning	remove dust from the fabric surface, then wipe gently with a humid soft sponge while using a mild detergent

147145 chalk
Width: 2500 mm



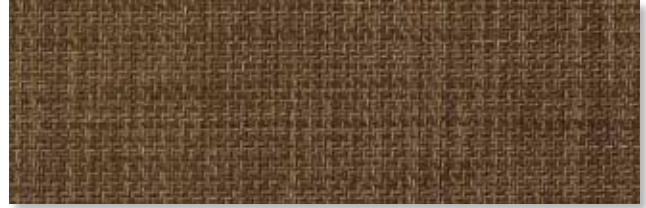
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.9	28.1	63.9	6.6	2.1	4.5	5	5.2	Class 2

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.21	0.56	0.17	0.55	0.11	0.48	0.09	0.28
Classes	2	0	2	0	3	1	4	2

147147 dolomite
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	6.4	15.3	78.3	5.6	1.1	4.6	5.1	4.3	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.22	0.63	0.17	0.62	0.11	0.52	0.09	0.3
Classes	2	0	2	0	3	0	4	2

147149 quartzite
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	6.3	21.9	71.8	5.6	1.2	4.4	5	4.3	Class 3

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.21	0.59	0.16	0.59	0.1	0.5	0.09	0.29
Classes	2	0	2	0	3	1	4	2

148147 tuff
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.1	12.4	80.5	6.6	1.1	5.5	6.2	5	Class 1

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.23	0.65	0.18	0.63	0.12	0.53	0.1	0.3
Classes	2	0	2	0	3	0	4	2

148148 slate
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.1	9.7	83.2	6.8	1	5.8	6.4	5.2	Class 1

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.24	0.67	0.19	0.65	0.12	0.54	0.1	0.3
Classes	2	0	2	0	3	0	4	2

148149 limestone
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	6.8	18.1	75.1	6.4	1.1	5.3	5.9	4.9	Class 1

g_{tot}

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.22	0.62	0.17	0.61	0.11	0.51	0.09	0.29
Classes	2	0	2	0	3	0	4	2

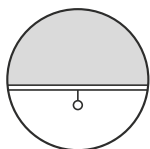
Scala OF 5%

WP05A

FABRIC CODE

Make people's heads turn when they pass,
with this beautiful weave made out of bicolor yarns.

Can be used both exterior and interior.



Scala

OF 5%

WP05A

FABRIC CODE

Yarn

Technical specifications	Average Values	Standard
Titer	165 tex	ISO 1889 (2009)
Weighted composition	Glass 41%, PVC 59%	ISO 3801 (1977)
Diameter	0.39 mm	

Fabric

Type of fabric	PVC-coated fiberglass fabric
Weave pattern	Basket weave
Widths	2500 mm
Roll length (nominally)	30 m

Technical specifications	Average Values	Standard
Thickness	0.79 mm	ISO/DIS 5084.2 (1996)
Mass	601 g/m ²	ISO 3801 (1977)
Fire resistance	M1 FR	NF P92-503 (1995) NFPA 701 (2010)
Breaking strength	warp 390 daN, weft 260 daN	ISO 13934-1 (1999)
Elongation at break	warp 3,2%, weft 6,4%	ISO 13934-1 (1999)
Tear resistance	warp 10 daN, weft 16 daN	ISO 4674 part 1 method A (2003)
Colorfastness (white excluded)	7 scale of blue	ISO 105 B02 (1994)
Air porosity	743 l/m ² /sec	ISO/DIS 9237 (1995)

Processing

General - specifications are purely indicative and may not be considered as binding. Colors may vary from the samples shown.

Cutting	crush or ultrasonic; do not railroad
Welding	thermal, HF, ultrasonic, sewing
Cleaning	remove dust from the fabric surface, then wipe gently with a humid soft sponge while using a mild detergent

147x08 Siena
Width: 2500 mm



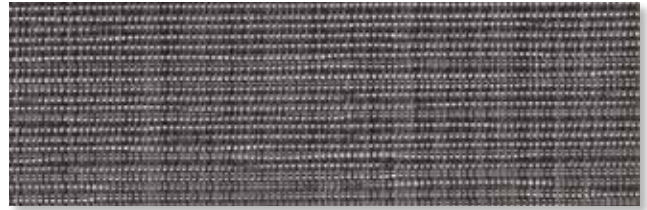
Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.7	21.4	70.9	6.7	1.5	5.2	5.6	5.2	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.22	0.60	0.17	0.60	0.11	0.50	0.09	0.29
Classes	2	0	2	0	3	0	4	2

148x01 Lucca
Width: 2500 mm



Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	8.2	16.2	75.6	7.8	1.3	6.5	7.0	6.0	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.23	0.63	0.19	0.62	0.12	0.52	0.10	0.29
Classes	2	0	2	0	3	0	3	2

148x25 Ravenna
Width: 2500 mm

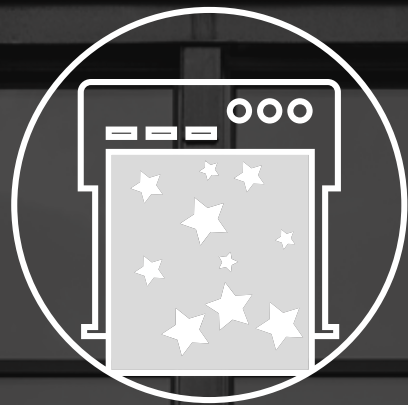


Solar Heat & Light Control Properties

	Ts	Rs	As	Tv	TVdiff	TVdir	Tuv	TVdif-h	Glare control
	7.9	13.8	78.3	7.7	0.8	6.9	7.3	5.8	Class 1

gtot

	A		B		C		D	
	ext.	int.	ext.	int.	ext.	int.	ext.	int.
Values	0.24	0.64	0.19	0.63	0.12	0.52	0.10	0.30
Classes	2	0	2	0	3	0	3	2



PRINT ON SCREEN

So far screen fabrics were designed to be functional. While keeping this functional aspect, fiberglass screen fabrics with printed designs are unique and have a high added value for new businesses, especially projects.

DIGITAL PRINTING, A FULLY SUSTAINABLE PROCESS

Digital printing refers to the method of printing from a digital based image directly to a variety of media. The main difference between digital printing and traditional methods is that no printing plates are used. This results in a quicker and less expensive turnaround time.

The printing method is - both environmentally and technically - a sustainable process. We use the greenest printers on the market. No special preliminary treatment of the fabric is required, and printing can easily be done for inside and outside applications. Almost any type of the Helioscreen fiberglass fabric range can be printed on. There is no special treatment required afterwards and the inline fixation is done at low temperature.

Digital print applications reduce the impact on the environment because non-toxic, low-smell inks are used. VOC-levels (volatile organic compound levels) of both fabric and print, are extremely low. Because the inks are fire retardant and non-combustible the printing process is performed in a safe working environment.

THE ONLY LIMIT IS YOUR IMAGINATION

Think out of the box and use your imagination. Whether you propose print on rollerblinds, tensile structures or even as a decoration or communication tool, many other options or applications are possible. Share your thoughts with us and create your own designs. We will be glad to explore what never has been done and think "out of the box" together with you. The only limit is your imagination.

Helioscreen also has a range of standard patterns to print on screen fabric: ask for our collection book.





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All figures provided in this Guide are measured and calculated by accredited laboratories according to the latest European standards.

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