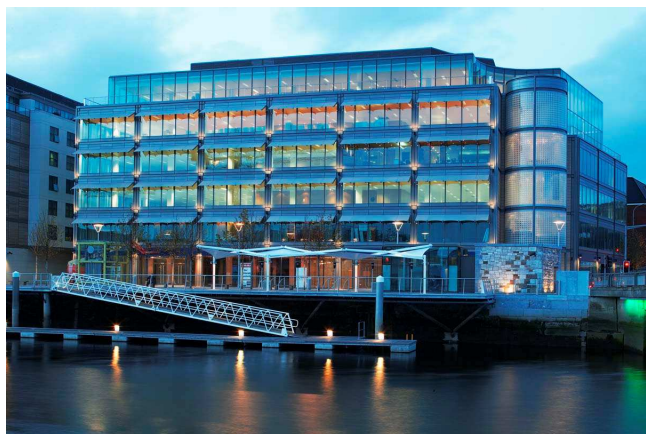
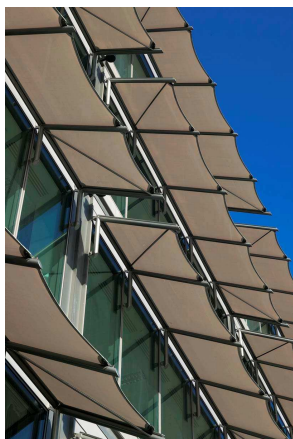


News N1 – Solar protection

→ Accomplishment

Controlling heat and glare in the workplace



Controlling natural light and heat in offices reinforces employee productivity. The architects Scott Tallon Walker had the comfort of the occupants in mind when they found an efficient solar protection solution for their building project at Cork City in Ireland.

The buildings in Cork City, a port in the southwest of Ireland, are subject to the effects of the sun and ocean winds. The architects Scott Tallon Walker were, as a consequence, faced with a true challenge for their office building project at Lapps Quay: Protecting the inhabitants from glare and heat with outdoor blinds capable of resisting the winds, while at the same time preserving a perfect transparency and the aesthetic appearance of the façade!

Their solution? Light weight fixed solar shading structures, fitted with **Sunscreen® Satiné 5500** fabric from the Mermet® Modulight® collection.

Combining comfort and technical sophistication

The architects chose a dark colour, the 0101 grey, from the possibilities on offer in the range, due to its multiple qualities. First of all, the Sunscreen® Satiné 5500 fabric provides the employees with thermal and visual comfort. When used outside, **it rejects 84% of solar radiation**. In this way it allows for the summer and winter indoor temperatures to be regulated, to save energy and to limit the emission of greenhouse gases. **Its diagonal weave filters 96% of light rays and rejects 96% of ultraviolet rays**. Irrespective of the position of the sun, employees are able to work in natural light without being dazzled. Thanks to the regularity of the coating and the weave of the glass fibres, the fabric provides **excellent transparency** and ensures that the occupants have a perfect outward visibility.

Secondly, from a technical point of view, the Sunscreen® Satiné 5500 fabric has a **perfect dimensional stability and an excellent mechanical performance** which makes it easily adapted to structures such as the solar shading. Even with large-scale dimensions (the blinds measure 5.6 metres in width and 1.35 metres in drop, **the fabric resists winds of 190 km / hour (118 miles / hour)**). In addition, **certificated IMO** (International Maritime Organization), this fabric resists saline corrosion from marine atmospheres.

Finally, from regulation aspect, this fabric, fire rated to BS 476 Pt6 Class 0, complies with Irish law. **The Oeko-tex Standard 100 label** further guarantees that the fabric is harmless to the health and safety of users.

Technical characteristics of the Sunscreen® Satiné 5500 fabric

| | |
|--------------------------------|--|
| Composition | 42% fibre glass - 58% PVC |
| Fire resistance classification | M1, B1, BS 476 Pt6 Class 0, FR, AS |
| Openess factor | 5% |
| Ultraviolet block out | Up to 96 % |
| Widths | 160 - 190 – 220 – 250 – 285 cm |
| Weight per m ² | 535 g |
| Thickness | 0,78 mm |
| Breacking strength | Warp > 280 daN/5 cm Weft > 170 daN/5 cm |
| Colourfastness to light | 7/8 |
| Marking | Digital printing, silk-screen printing, painting, adhesive |
| Making-up | Welding (thermal, high frequency, ultrasound) or sewing |

➔ Product in the limelight: T-Screen 9601, the visual and thermal comfort solution for all tertiary buildings

Nowadays, the "all-glass-window" architecture creates working ambiances which are completely open to the exterior. But are large picture windows always compatible with work on a computer screen? How can we eliminate the sources of glare and reflection that disturb employees?

If working in a building with large glass windows gives employees the impression that they are not cut off from the outside world, the radiation and heat from the sun often disturbs them in their work.

The function of the **Mermet® T-Screen 9601 fabric** for internal blinds is to resolve the problems of visual and thermal comfort. Double-sided, its lighter side (against the window) protects against heat while its darker side (facing inwards) optimises outward visibility.



T-Screen 9601, technical prowess promoting well-being



Designed specifically to control glare, **its diagonal regular weave blocks up to 97% of solar radiation** – irrespective of the angle of the sun's rays – **and up to 97% of ultraviolet rays**. Gone are the days when you had reflection on your computer screens!

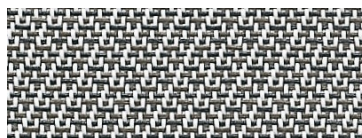
From a thermal point of view, the T-Screen 9601 fabric creates a pleasant environment, favourable for better employee productivity. **It eliminates up to 67% of solar radiation in summer and prevents heat loss in winter**. In this way, it reduces the running costs of buildings (air-conditioning and heating) and helps to reduce the emission of greenhouse gases.

Finally, **the T-Screen 9601 fabric protects the best of natural light** by providing clear outward visibility. What is the secret of this achievement? Very fine glass fibres, regularly coated and woven into a diamond shape, which has been specifically designed to maintain transparency.

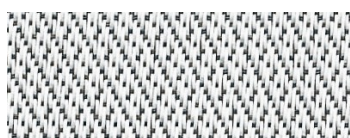
In addition to these advantages for the employees, the T-Screen 9601 fabric also has solid technical attributes: Its **excellent mechanical resistance and perfect dimensional stability** permit small or large dimension blinds to be maintained under tension.

Rot-proof, non-flammable, easy to clean, the fabric has received **the Oeko-tex Standard 100 label** which guarantees the absence of any dangerous chemical substance concerning the health and security of users.

T-Screen 9601 colour M118 020630 White Bronze Charcoal



Side A



Side B

Technical characteristics of the T-Screen 9601

| | |
|--------------------------------|--|
| Composition | 36% fibre glass - 64% PVC |
| Fire resistance classification | M1, FR, AS, C UNO, B1 (China) |
| Openess factor | 1 –2 % |
| Ultraviolet block out | Up to 96% |
| Widths | 250 cm |
| Weight per m ² | 405 g |
| Thickness | 0,70 mm |
| Breaking strength | Warp > 190 daN/5 cm Weft > 130 daN/5 cm |
| Colourfastness to light | 7/8 |
| Marking | Digital printing, silk-screen printing, painting, adhesive |
| Making-up | Welding (thermal, high frequency, ultrasound) or sewing |

➔ Regulations and Standards

Clear and rationalized information on solar protection performance characteristics

At national and European levels, scientists and players within the industrial association on solar protection are collaborating to quantify and inform on the energy-saving benefits of blinds. Having established realistic and efficient standards, they contribute in safeguarding the planet. This is a review of their work ...

Mermet®, which is a leading player in the solar protection market, takes part, with the **SNFP SA*** [*French association of Shutters, Solar Protection and Associated professions*], in different work groups on a national level but also with the European Committee for Standardization (**CEN**). The objective of these organizations is clear: **highlight the energy savings made by solar protections which are said to be "passive**" with the professionals in the industry in order to contribute to the European fixed goals.**

In 2007, two major advances have been made.



The publication of 2 standards (EN 14501/14500), indicating the thermal and optical characteristics of solar protections together with their testing and calculation methods, centralizes the updated work carried out in Europe for the past 7 years. The classification into 5 performance levels will enable specifiers and installers to understand better the energy savings at stake when selecting a technical solution. Mermet® is today the first industrial company to provide this technical data on all of the solar protection fabrics in its Modulight® collection.



The revision of the requirement standards on all the performance results of outdoor and indoor blinds (EN 13561/13120) following developments in the characterization methods enables the technical data to be rationalized. Thanks to these regulations, professionals will be able to carry out a better assessment of the products since all of the associated parameters will be shown on the same unit.

In France, the SNFP SA*** has published two leaflets*** providing a simplified version of these standards.

And what is going to happen tomorrow?

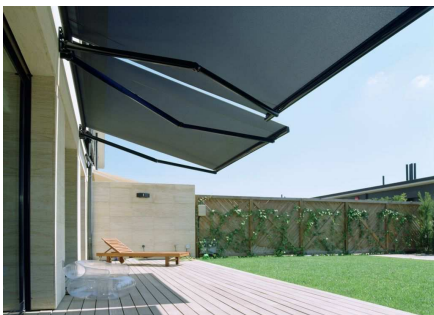
The SNFPSA has already drawn up the list of standards, which were written more than 5 years ago, requiring revision. It also organises professional meetings where current subjects are discussed. Furthermore, a draft order from the French Ministry for Infrastructure concerning requirements on building renovation products in terms of energy savings supports the work of the SNFPSA to inform the industry. The work conducted by the French association in favour of an acknowledgement of solar protections will be transmitted to a higher authority, that of the European commission; by the "**European Solar Shading Association**" (ES-SO).

** the SNFPSA is a member of the French Building Federation (FFB).*

*** Passive solar protections cover methods which provide cool air in summer and hot air in winter without consuming energy, which is the opposite to air-conditioning and heating.*

**** Leaflets available from the marketing department at Mermet®*

➔ Did you know? Breathing under the blind



Who has never felt the heat under an awning? During the aperitif, the air becomes very heavy and the ambiance falls.

With the Sunscreen® Satiné 5500 fabric, such memories will be a thing of the past! Terraces will now be protected from the sun and well ventilated ...

Whether they are installed as outdoor blinds on a terrace or balcony, the traditional acrylic-blinds create a heavy atmosphere, which might be difficult to bear if exposure is southerly. Today, awning mechanisms can be equipped with an alternative: the Sunscreen® Satiné 5500 fabric from Mermet®. This fabric – which has already proved its thermal performances in vertical blinds – is going to change the life of anybody wanting to maximise their outdoor space! How?

First of all, its open and airy weave allows the air to circulate. **It naturally and efficiently ventilates the area** under the blind while at the same protecting the users from the direct sun.

Secondly, **the Sunscreen® Satiné 5500 fabric possesses thermal and optical advantages thanks to its two sides: the light side facing the sun repels the heat; the dark side underneath controls glare.**

Finally, the aesthetic result is faultless. The fabric harmonizes with the solar protection blind and decorative interiors. Solid and equipped with a **good mechanical resistance**, its assembly on the awning frame provides it with a perfect evenness. Its colours, which are resistant to ultraviolet rays, provide it with a long lifespan.

But its **greatest quality is its transparency!** The feeling of being 'hemmed in' disappears. With the Sunscreen® Satiné 5500 fabric, the heavenly canopy is projected as if it were on an outdoor cinema screen.

A few installation tips

The Sunscreen® Satiné 5500 fabric, with a weight of 535g/m² and a maximum width of 285 cm is suitable for awning frames and can be adapted to different requirements.

For small widths awnings (up to 3,600 mm), Mermet® recommends using the fabric railroaded. Its width (285 cm) becomes the horizontal projection of the awning.

For an horizontal projection of 3,000 mm, the fabric should be assembled horizontally, the welded part placed at the top (close to the rolling mechanism).

For a longer horizontal projection and a much wider width of awnings, the panel is made up in the traditional way by vertical weldings (various widths available: from 160 to 285 cm).

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