

SCREEN DESIGN

# SCREEN PROGRESS

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INTELLIGENT FABRICS FOR SOLAR PROTECTION



INTERNAL  
APPLICATION

# SCREEN PROGRESS

## 1 FABRIC FOR 3 FUNCTIONS: **GLARE CONTROL, NATURAL LIGHT AND TRANSPARENCY**

**3 TO 17%**

PROGRESSIVE  
OPENNESS  
FACTOR

**TAILOR-MADE**  
SOLUTION

- Depending on spatial configuration, the **SCREEN PROGRESS** fabric lets in **NATURAL LIGHT** through its open portion (Tv from 17% to 34% depending on colours) positioned at the top or bottom of the shade, while **CONTROLLING GLARE WITH THE DENSE PART** at workstations for **OPTIMUM VISUAL COMFORT** (Tv from 3% to 19% depending on colours)
- Reduced energy consumption for artificial lighting, while filtering natural light to the desired level
- Good level of **TRANSPARENCY**
- **CUSTOM-MADE PANELS** according to the needs of each building, **22 COLOURS** to choose from the M-Screen range
- **HARMONIOUS FACADE** seen from the outside; the deployed blinds meet all the needs of the occupants: glare control, natural light and keeping the outward view
- **DIMENSIONAL STABILITY, DURABILITY** (test of 10.000 cycles, class 3 NF EN 13120), **MECHANICAL RESISTANCE**: perfect flatness even in large dimensions
- Health & Safety: conforms to standard requirements for buildings open to the public

### INTERNAL APPLICATION



## TECHNICAL DATA

SCREEN PROGRESS			
Composition	36% Fibreglass - 64% PVC		
Fire, smoke classification and other official test reports*	<b>M1 (F)</b> - NFP 92 503 <b>B1 (DE)</b> - DIN 4102-1 <b>BS (GB)</b> - 476 Pt 6 & 7 Class 0 <b>CLASE 1 (SP)</b> - EN 13773 <b>FR (US)</b> - NFPA 701 <b>HHV:</b> 14,6 MJ/kg (4,74 to 6,13 MJ/m <sup>2</sup> )		
Health, safety	<b>Greenguard® GOLD:</b> Guarantee of indoor air quality (VOC) <b>Antibacterial:</b> More than 99% of bacteria destroyed - ASTM E 2180		
Openness factor	3 to 17%		
UV screen	Up to 97% (OF 3%)		
Width	250 cm		
Weight/m <sup>2</sup> - ISO 2286 - 2	OF 3%: 420 g ± 5% - OF 17%: 325 g ± 5%		
Thickness - ISO 2286 - 3	OF 3%: 0,50 mm ± 5% - OF 17%: 0,56 mm ± 5%		
Colour Fastness to light (scale of 8)	7/8 - ISO 105 B02 (white not graded)		
Mechanical resistance	Breaking	Tear	Folding
Warp	> 150 daN/5 cm	≥ 4 daN	≥ 30 daN/5 cm
Weft	> 100 daN/5 cm	≥ 4 daN	≥ 30 daN/5 cm
	ISO 1421	EN 1875-3	ISO 1421**
Elongation (warp and weft)	< 5% - ISO 1421		
Packaging	Squared panels		
Making up	Advice note on request		

This product's technical data are in conformity with this brochure as of the date of publication. MERMET SAS reserves the right to change the technical data; only those provided on the company's website [www.sunscreen-mermet.com](http://www.sunscreen-mermet.com) shall be deemed to be authentic. Where applicable, MERMET SAS also reserves the right to withdraw this product from sale should any of the technical properties or characteristics set out above prove to be inadequate or rendered impossible as a result of a change in regulations or in knowledge or understanding.

\* Reports available on request, please contact Mermet

\*\* Internal procedure derived from ISO 1421 standard

## THERMAL AND OPTICAL FACTORS in the European standard EN 14501

Example of values for a light, medium and dark colour in the dense part (OF 3%) and open weave part (OF 17%)

SCREEN PROGRESS		Thermal factors					Optical factors
		Fabric			Fabric + Glazing / g <sub>tot</sub> internal blind		T <sub>v</sub>
Colours	OF	T <sub>s</sub>	R <sub>s</sub>	A <sub>s</sub>	C : g <sub>v</sub> = 0,59	D : g <sub>v</sub> = 0,32	
0202 White	3%	20	70	10	0,28 ②	0,13 ③	19
	17%	34	57	9	0,34 ②	0,18 ②	34
0707 Pearl	3%	12	38	50	0,41 ①	0,22 ②	10
	17%	28	31	41	0,46 ①	0,25 ②	26
3030 Charcoal	3%	3	6	91	0,56 ①	0,31 ②	3
	17%	17	4	79	0,57 ①	0,31 ②	17

g<sub>v</sub> = 0,59: Solar factor of standard glazing (C), low-emission 4/16/4 double glazing filled with Argon (U value thermal transmittance = 1,2 W/m<sup>2</sup>K).

g<sub>v</sub> = 0,32: Solar factor of standard glazing (D), reflecting low-emission 4/16/4 double glazing filled with Argon (U value thermal transmittance = 1,1 W/m<sup>2</sup>K).

Comfort classification according to EN 14501 standard: ① very little effect ② little effect ③ moderate effect ④ good effect ⑤ very good effect

Samples tested according to EN 14500 standard defining the measurements and calculation methods as specified in the standard EN 13363-2 "Solar protection devices combined with glazing calculation of solar and light transmittance - part 2: EN 13363-2 detailed method" and EN 410 "Glass in building - Determination of luminous and solar characteristics of glazing".

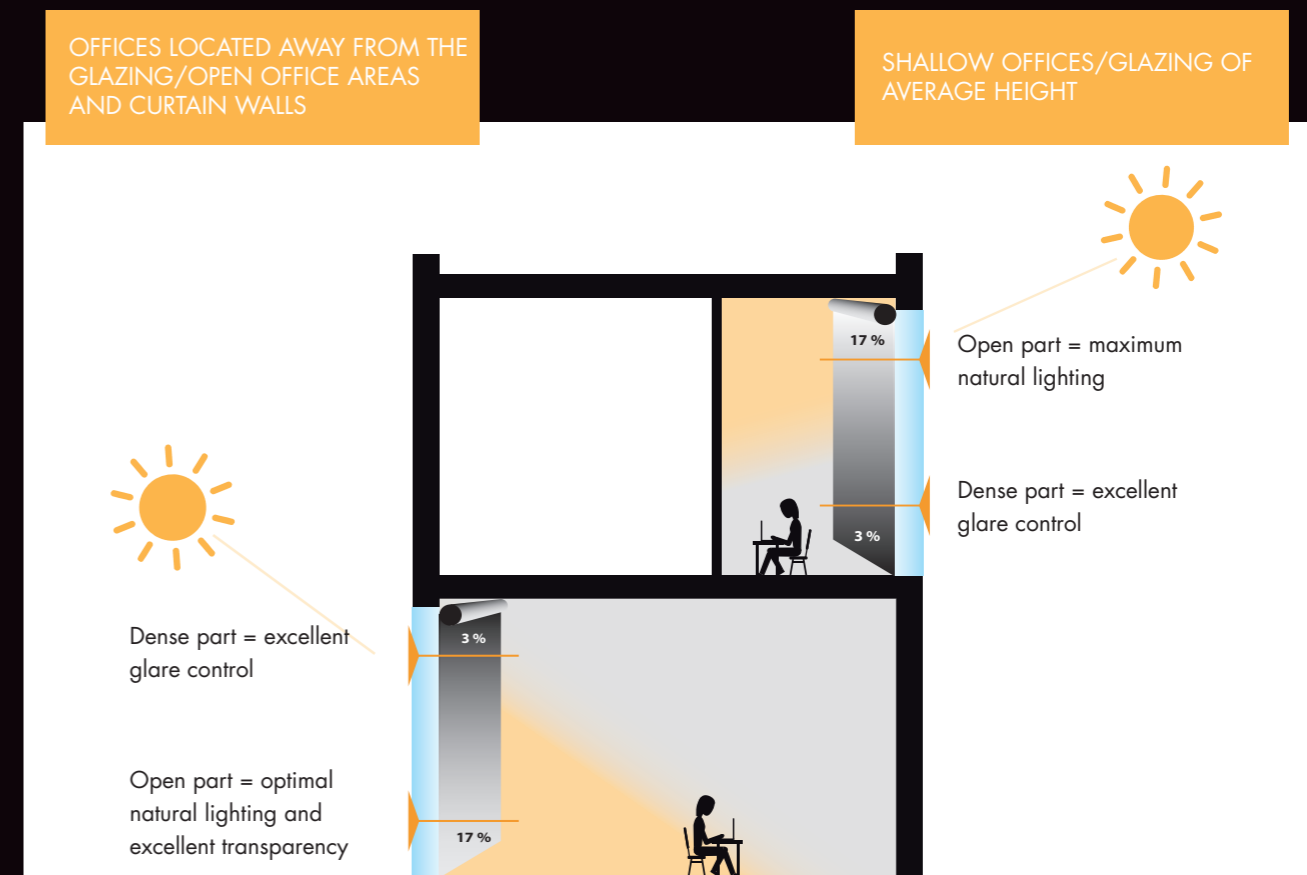
## CUSTOMISED SUN CONTROL

**CONTROLLING GLARE** while offering a maximum amount of **NATURAL LIGHT** and **EXCELLENT TRANSPARENCY**: this is the challenge of SCREEN PROGRESS fabric.

The blind can remain lowered throughout the day; brightness is filtered at the workstations while natural light continues to fill the room.

The **AESTHETIC APPEARANCE** of the external façade is preserved.

SCREEN PROGRESS fabric can be installed in **2 WAYS** depending on the building's configuration, the height of the windows and the depth of the room:



■ In the case of open office areas and curtain walls, the upper part of the large glazed area is likely to cause significant discomfort due to the direct sunlight.

■ When the workspace is located near windows or when the glazing is of medium height, the **OPEN WEAVING** of the fabric is positioned in the **UPPER PART** of the blind to illuminate the room from the ceiling, while providing perfect glare control at the workstations.

By placing the **DENSEST PART** of the SCREEN PROGRESS fabric in the **UPPER PART**, the brightness of the sun's rays is significantly reduced, thereby protecting the user from glare while ensuring a high degree of transparency in the lower part of the blind, and a gain of natural daylight.

# SCREEN PROGRESS

## 1 SOLUTION FOR 3 FUNCTIONS

- GAIN OF NATURAL DAYLIGHT
- GLARE CONTROL
- EXCELLENT TRANSPARENCY

To control glare with a conventional blind, it is recommended that a dark fabric be chosen with a low openness factor coefficient in order to obtain a relatively low visible light transmittance ( $T_v < 10\%$ ).

In this manner, little natural light passes through the blind and artificial lighting may be necessary.

The innovation with SCREEN PROGRESS fabric is **THE PROGRESSIVE WEAVING ON THE SAME BLIND** which allows to combine visual and thermal comfort and incoming natural light.

Depending on the building's configuration and the solar protection issues, the open weaving will let in daylight in the upper part or the bottom part of the blind, while the dense weaving will protect against glare at the workstations.

OF  $\approx$  3%

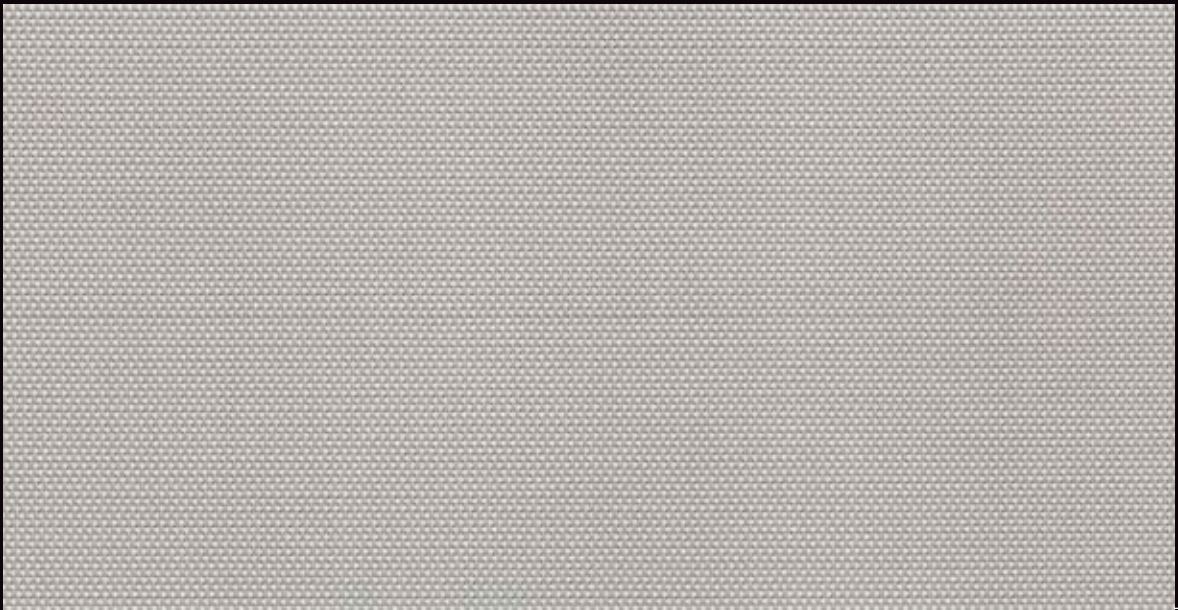
PROGRESSIVE OF

OF  $\approx$  17%

The dense part (MINIMUM OF 3%) limits discomforting glare on computers and provides excellent glare control while protecting against heat.

The open weave part (MAXIMUM OF 17%) lets in the natural light and offers good vision outside. This feature thereby reduces lighting-related power consumption in buildings.

OF  $\geq$  3%



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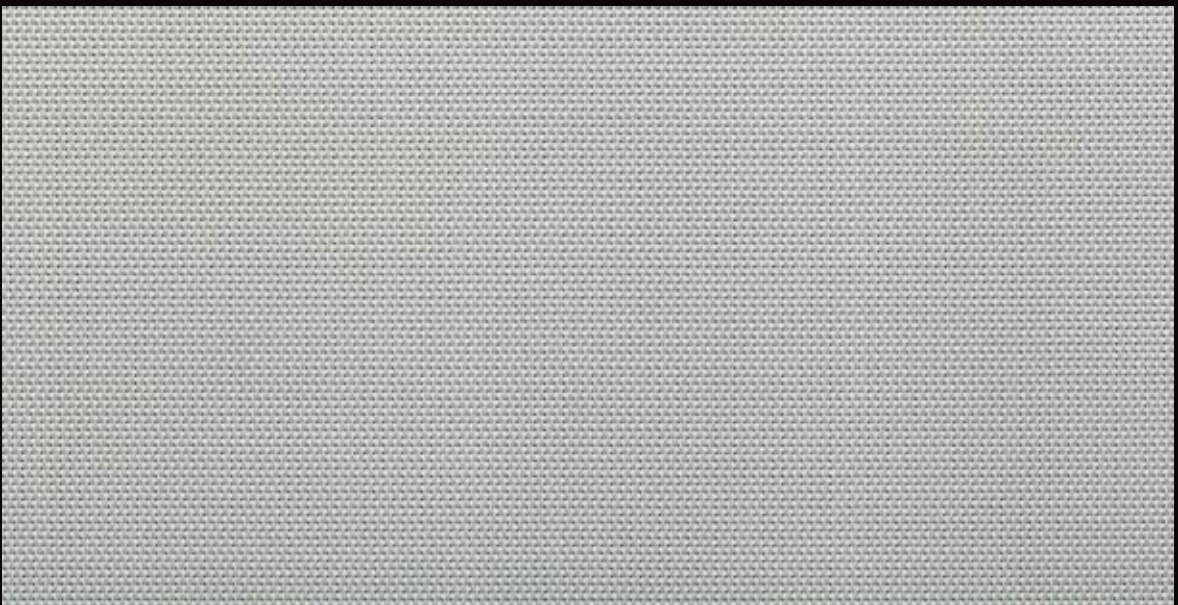
## PROGRESSIVE OF

SCREEN PROGRESS is a fabric in which the **OPENNESS FACTOR (OF)** progressively varies from a dense, tightly woven part (**MINIMUM OF 3%**) to an open weave part (**MAXIMUM OF 17%**) over the entire height of the fabric.

The SCREEN PROGRESS fabric is available in the 22 COLOURS of the M-Screen range, in the form of **CUSTOMISED PANELS**, and designed for blinds ranging from 1.60 m to 4 m in height.

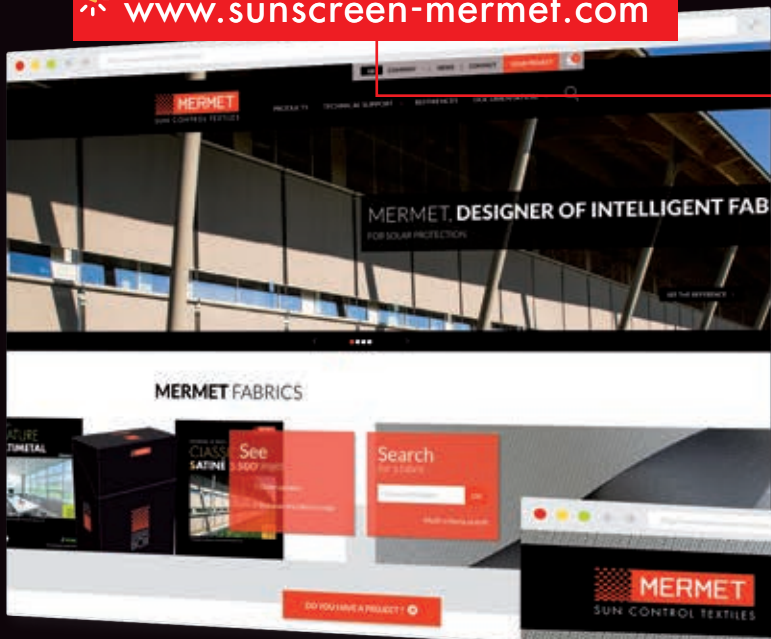
Depending on the size of the blind, the height of each part of the fabric (open, dense, progressive) will be designed to meet the sun protection requirements of the location.

OF  $\leq$  17%



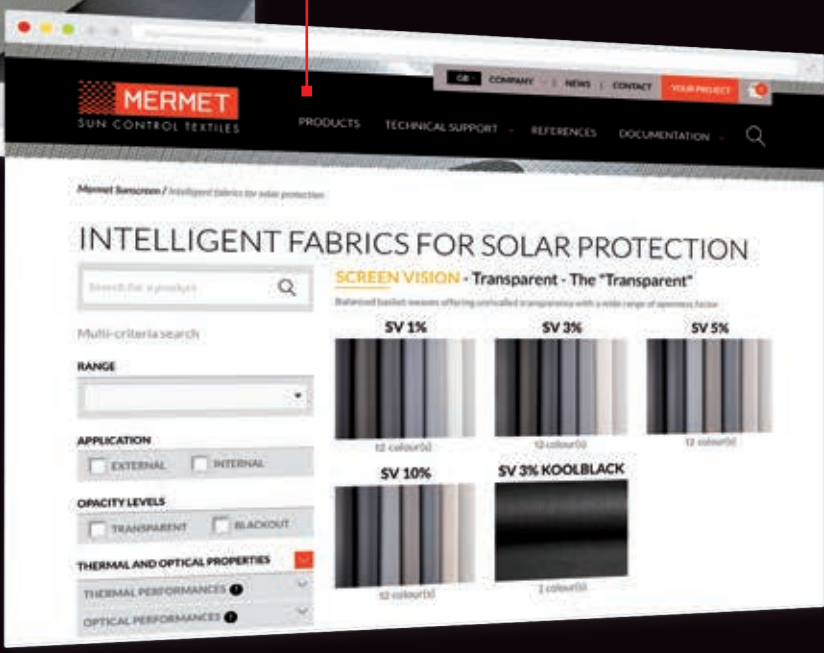
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**MERMET COLLECTION** offers a wide choice of fabrics for external and internal application, from transparency to total darkness, for thermal and optical comfort. To receive other brochures from the collection, **contact us**.



SCREEN VISION / DESIGN / THERMIC / LOW E      EXTERNAL SCREEN CLASSIC      SCREEN NATURE      BLACKOUT 100 %      ACOUSTICS



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