MERMET
SUN CONTROL TEXTILES

SCREEN LOW E

SATINÉ 5500 LOW E

INTELLIGENT FABRICS FOR SOLAR PROTECTION

INTERNAL APPLICATION

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SATINÉ 5500 LOW E
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THERMAL SHIELD FOR INTERNAL BLINDS

75%
OF SOLAR REFLECTANCE

9 %
OF EMISSIVITY
FOR THERMAL COMFORT
ALL YEAR ROUND

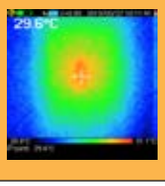
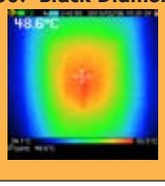
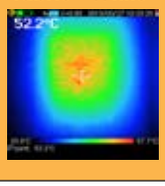
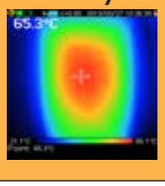
- **EXCELLENT HEAT PROTECTION** thanks to its double-sided metallization. The fabric alone reflects **88% OF SOLAR ENERGY** (gtot = 0,12 / glazing g = 0,32 and U = 1,1 W/m²K)
- Unequalled **EMISSIVITY LEVEL OF 9%** to minimize transmission of heat or cold from the glazing. The fabric acts as an **INSULATOR** for the glazing, increasing **INTERIOR COMFORT IN BOTH THE SUMMER AND WINTER**
- **EXCELLENT VISUAL COMFORT:** maintains view to the outside, optimisation of incoming natural light and total glare control, comfort classification 3 (good effect) according to EN 14501 standard
- A **BUILDING SKIN** that contributes to the **REDUCTION OF ENERGY CONSUMPTION** for air conditioning, lighting and heating, contributes to LEED and BREEAM certification
- **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

TECHNICAL DATA

SATINÉ 5500 LOW E			
Composition	42% Fibreglass - 58% PVC		
Fire, smoke classification and other official test reports*	**M1** (F) - NFP 92 503 **B1** (DE) - DIN 4102-1 **Euroclass C-s3-d0** (EU) - EN 13501-1 mounted according to EN 13823 & EN 14716	**FR** (US) - NFPA 701 **HHV**: 13,5 MJ/kg (7,02 MJ/m²)	
Health, safety	**Greenguard® GOLD:** Guarantee of indoor air quality (VOC) **Antibacterial:** More than 99% of bacteria destroyed - ASTM E 2180		
Openness factor	3%		
UV screen	96%		
Emissivity	0,09		
Width	240 cm		
Weight/m²	520 g ± 5% - ISO 2286 - 2		
Thickness	0,65 mm ± 5% - ISO 2286 - 3		
Mechanical resistance	**Breaking**	**Tear**	**Folding**
Warp	> 170 daN/5 cm	≥ 8 daN	≥ 90 daN/5 cm
Weft	> 120 daN/5 cm	≥ 6 daN	≥ 75 daN/5 cm
	ISO 1421	EN 1875-3	ISO 1421**
Elongation (warp and weft)	< 10% - ISO 1421		
Packaging	Rolls of 33 lm		
Making up	Advice note on request		

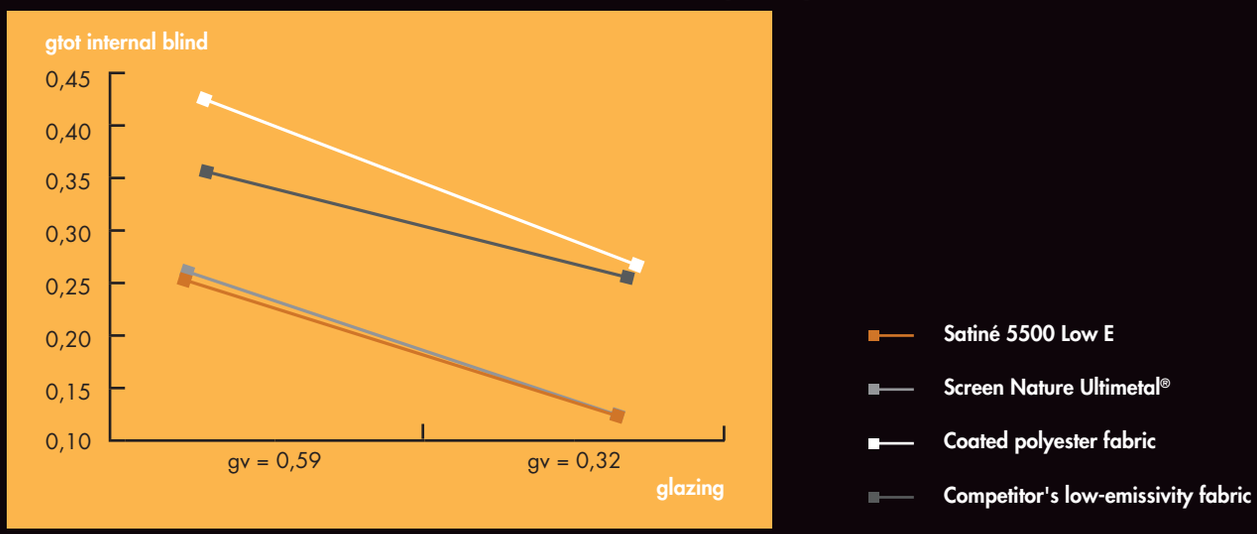
This product's technical data are in conformity with this brochure as of the date of publication. MERMET SAS reserves the right to change the technical data; only those provided on the company's website www.sunscreen-mermet.com shall be deemed to be authentic. Where applicable, MERMET SAS also reserves 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

COMPARISON OF THERMAL AND OPTICAL PERFORMANCES

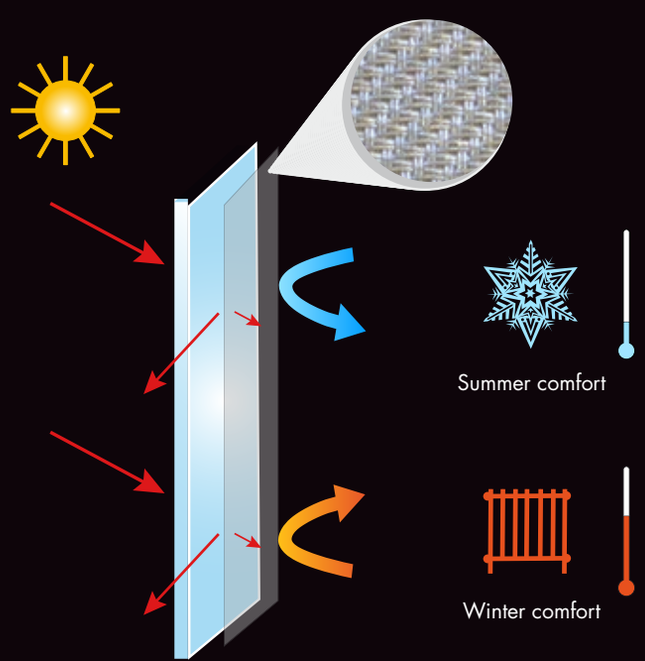
Fabrics tested Measurement of heat point by thermal camera after 3 minutes of exposure		Satiné 5500 Low E 	Screen Nature Ultimetal® - 1307 Black Diamond 	Coated polyester fabric - White 	Competitor's low-emissivity fabric 
Rs		75	73	44	65
ελ		**0,09**	0,10	0,90	0,35
gtot internal blind	C : gv = 0,59	0,26	0,27	0,42	0,36
	D : gv = 0,32	0,12	0,12	0,27	0,25
Tv		4	4	5	4

Rs: Solar reflectance ελ: Emissivity Tv: Visible light transmittance

COMPARISON OF GTOT VALUES for benchmark glazing EN 14501



EMISSIVITY IN FOCUS

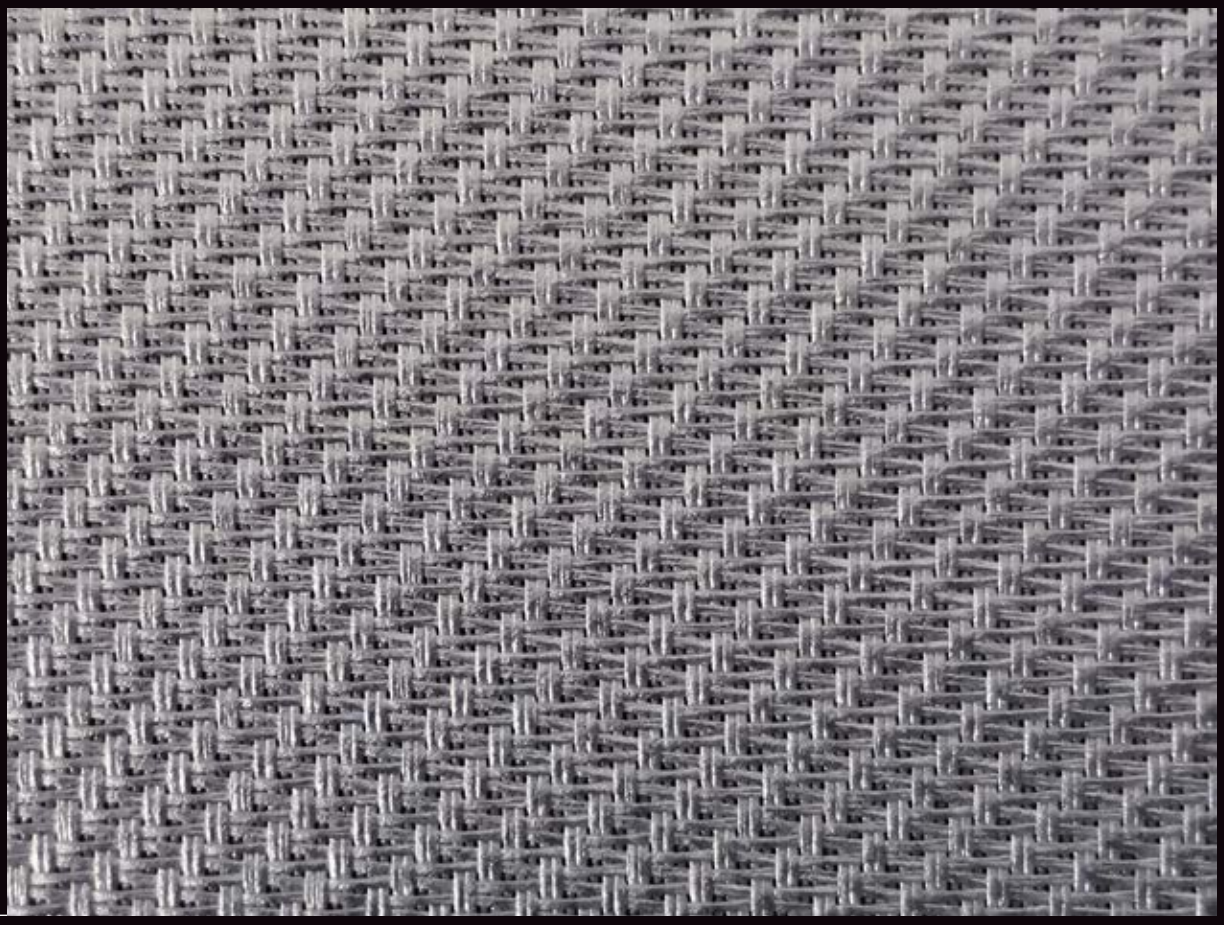


The emissivity of a material is its ability to re-emit the energy received through conduction (heat/cold).

A fabric with a low level of emissivity will limit the effect of inward radiation by limiting how cold it feels in winter and how hot it feels in summer.

The energy emitted through this reflection is kept inside so reducing air conditioning and heating consumption which in turn helps reduce energy consumption.

SATINÉ 5500 LOW E



LOW E
Side A

Colours may be slightly different from the actual ones

WIDTH: 240 CM

THERMAL AND OPTICAL FACTORS in the European standard EN 14501

SATINÉ 5500 LOW E OF 3%	**Thermal factors**					**Optical factors**
	Fabric			**Fabric + Glazing / gtot internal blind**		**Tv**
Colour	**Ts**	**Rs**	**As**	**C : gv = 0,59**	**D : gv = 0,32**	
Satiné 5500 **Low E - Side A**	4	**75**	21	0,26 ❷	0,12 ❸	**4**
Satiné 5500 **Low E - Side B**	4	**72**	24	0,27 ❷	0,12 ❸	**4**

gv = 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/m²K).
gv = 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/m²K).

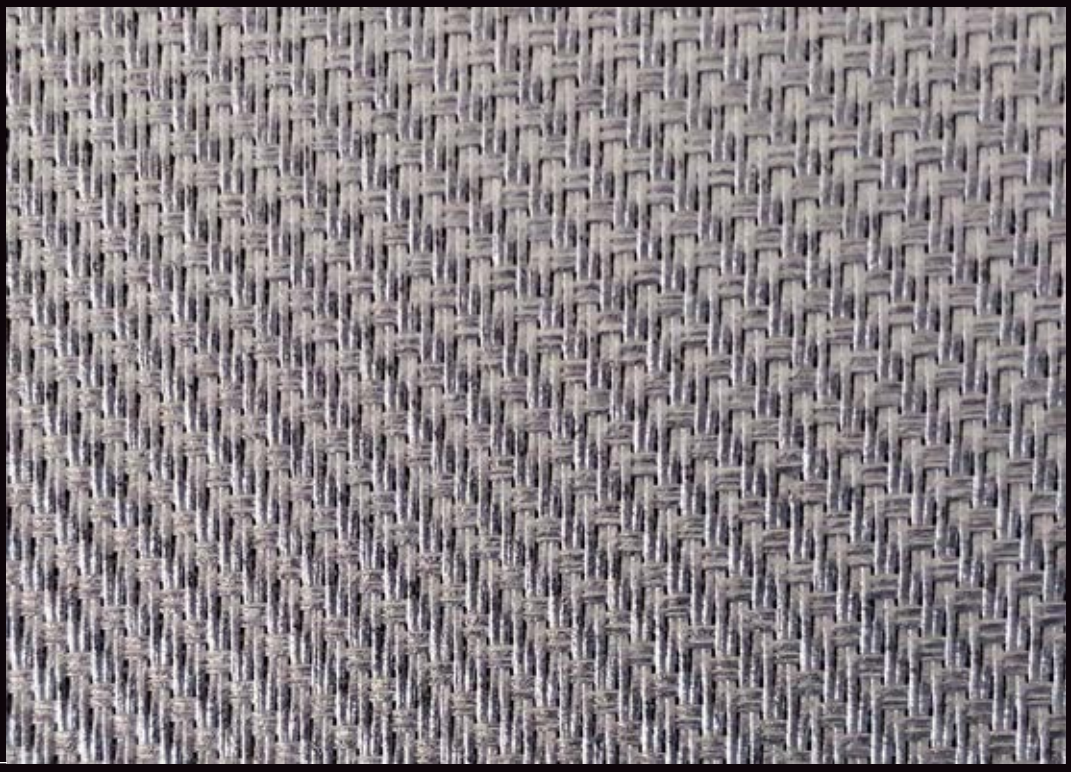
Comfort classification according to EN 14501 standard: ⓪ very little effect ❶ little effect ❷ moderate effect ❸ good effect ❹ very good effect

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".

SERVICE

- Calculation of solar factor gtot (glazing + blind)
- Spectral values and thermal & optical factors available on request
- Specification sheet
- A4 samples and prototypes
- Training on fabrics functionality

SATINÉ 5500 LOW E



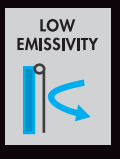
LOW E
Side B

INTERNAL APPLICATIONS

Roller blinds

Velums

ZIP Roller blinds



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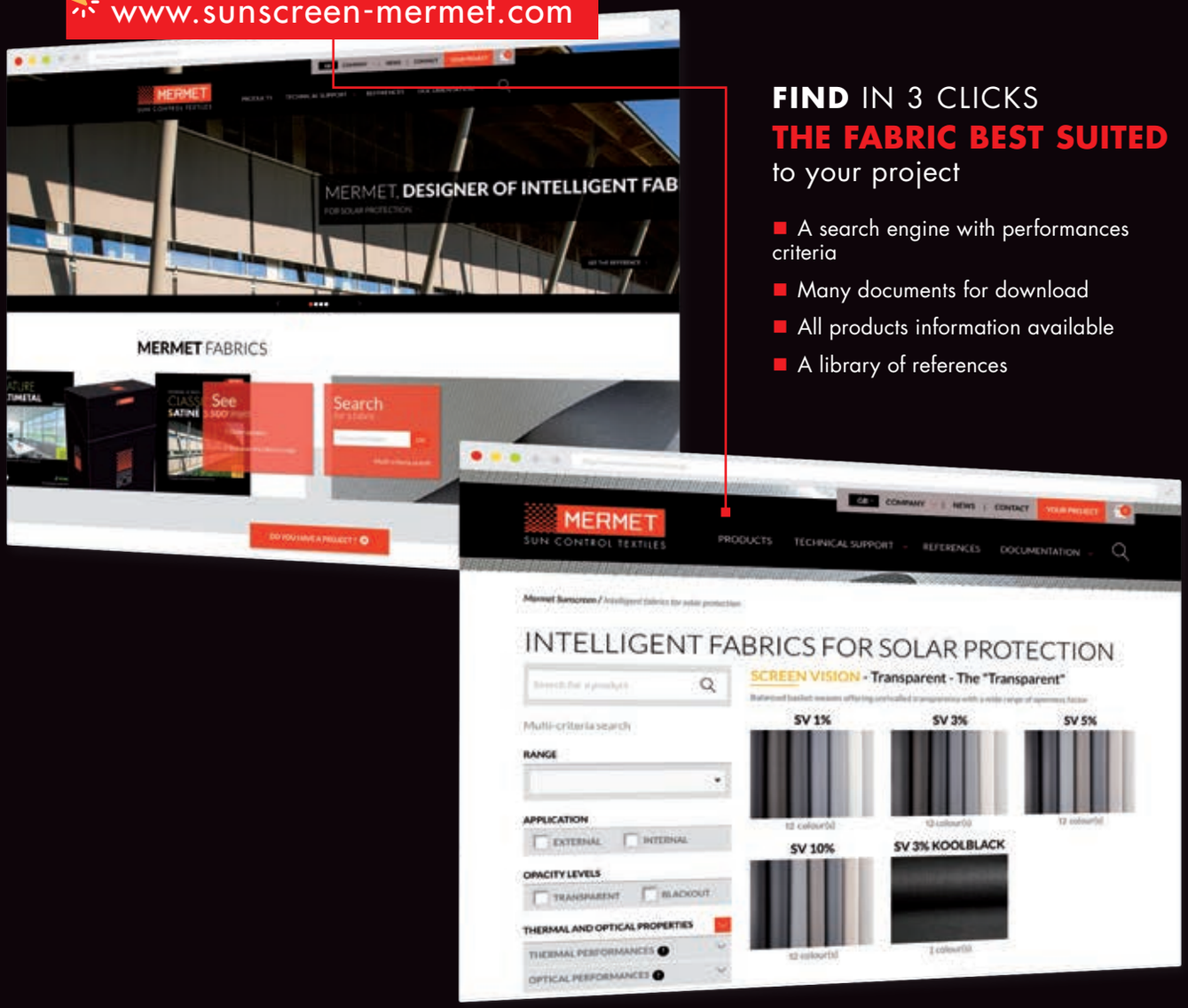

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THE FABRIC BEST SUITED
to your project

- A search engine with performances criteria
- Many documents for download
- All products information available
- A library of references

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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