

SCREEN LOW E

SATINÉ 5500

LOW E

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COLLECTION
2018
2021

INTELLIGENT FABRICS FOR SOLAR PROTECTION



INTERNAL
APPLICATION

SATINÉ 5500 LOW E

THERMAL SHIELD FOR INTERNAL BLINDS

78%
OF SOLAR REFLECTANCE

15%
OF EMISSIVITY

FOR THERMAL COMFORT
ALL YEAR ROUND

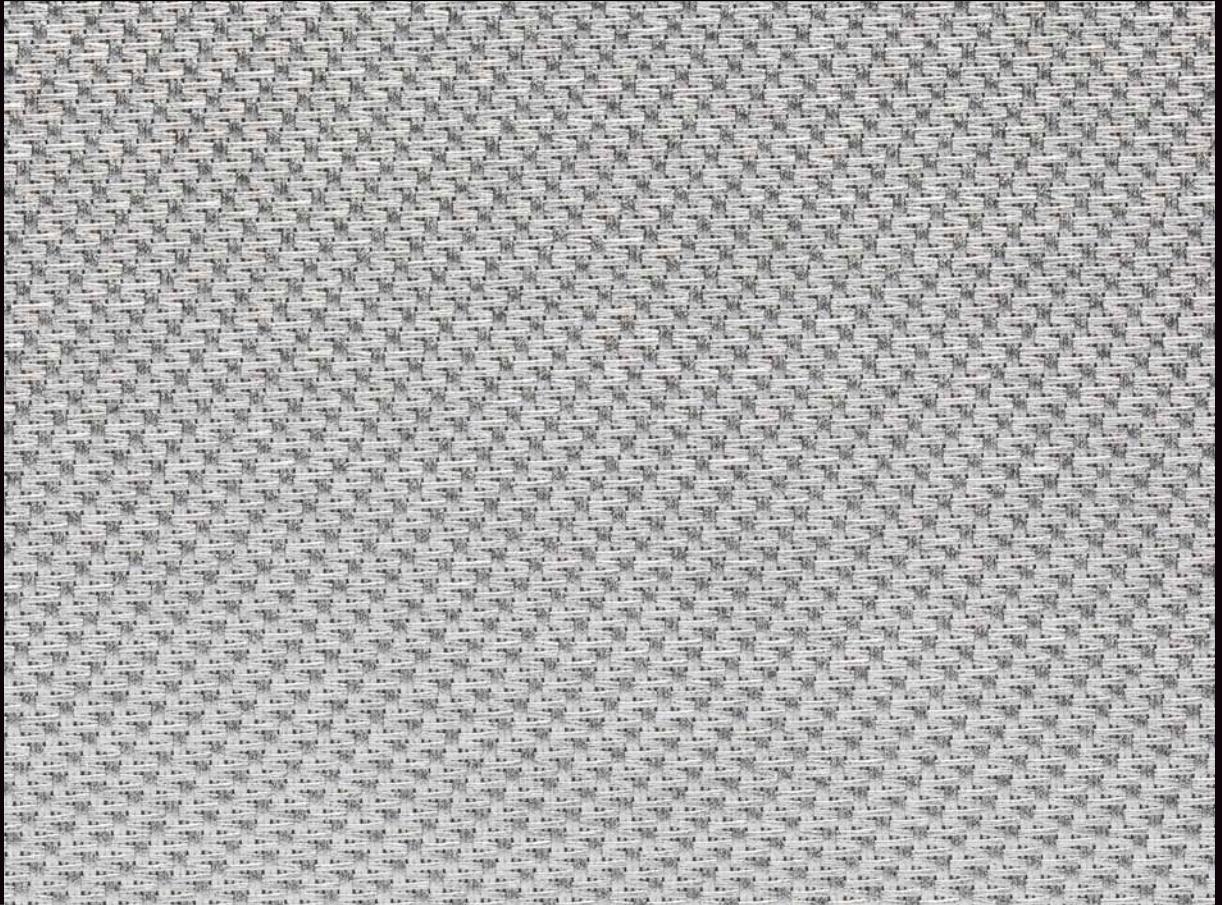
- **EXCELLENT HEAT PROTECTION** thanks to its double-sided metallization. The fabric alone reflects **87% OF SOLAR ENERGY** (gtot = 0,13 / glazing g = 0,32 and U = 1,1)
- Unequalled **EMISSIVITY LEVEL OF 15%** to minimize transmission of heat or cold from the glazing. The fabric acts as an **INSULATOR** 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/m ²)	
Health, safety	Greenguard®: Guarantee of indoor air quality (VOC) Antibacterial: More than 99% of bacteria destroyed - ASTM E 2180		
Openness factor	3%		
UV screen	96%		
Emissivity	0,15		
Width	240 cm		
Weight/m ²	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

SATINÉ 5500 LOW E



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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	4	78	18	0,26 ②	0,13 ③	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).

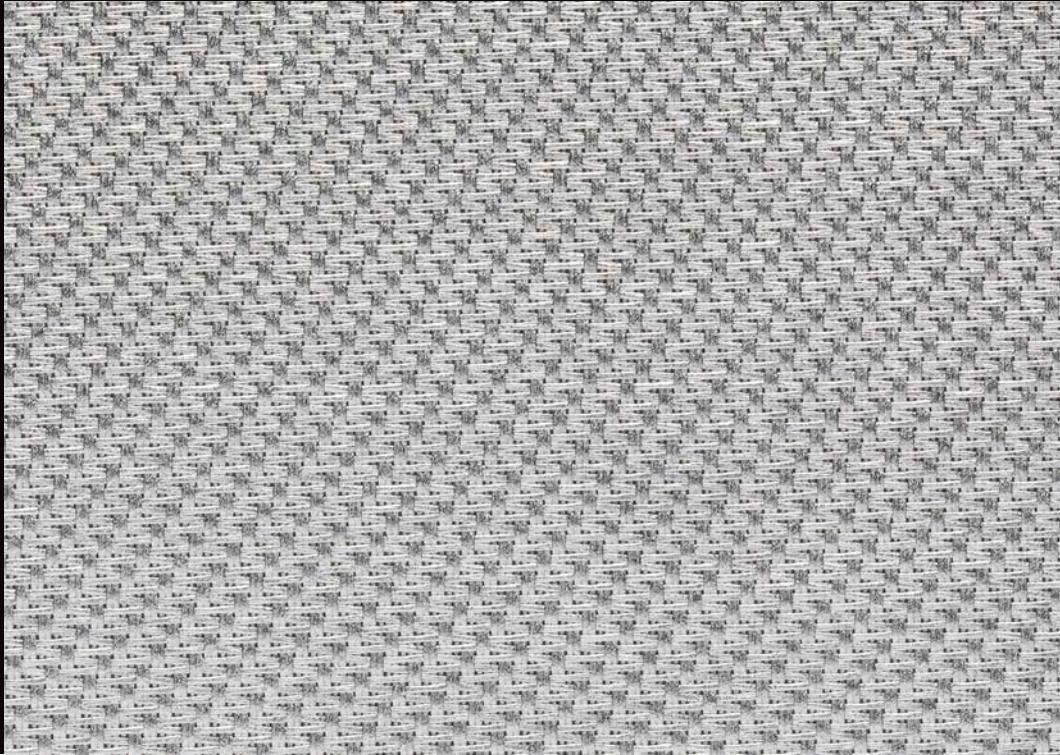
Classification according to EN 14501 standard: ① very little effect ② little effect ③ moderate effect ④ good effect ⑤ very good effect

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".

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

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INTERNAL APPLICATIONS



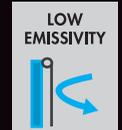
Roller blinds



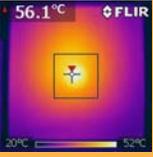
Velums



ZIP Roller blinds



COMPARISON OF THERMAL AND OPTICAL PERFORMANCES

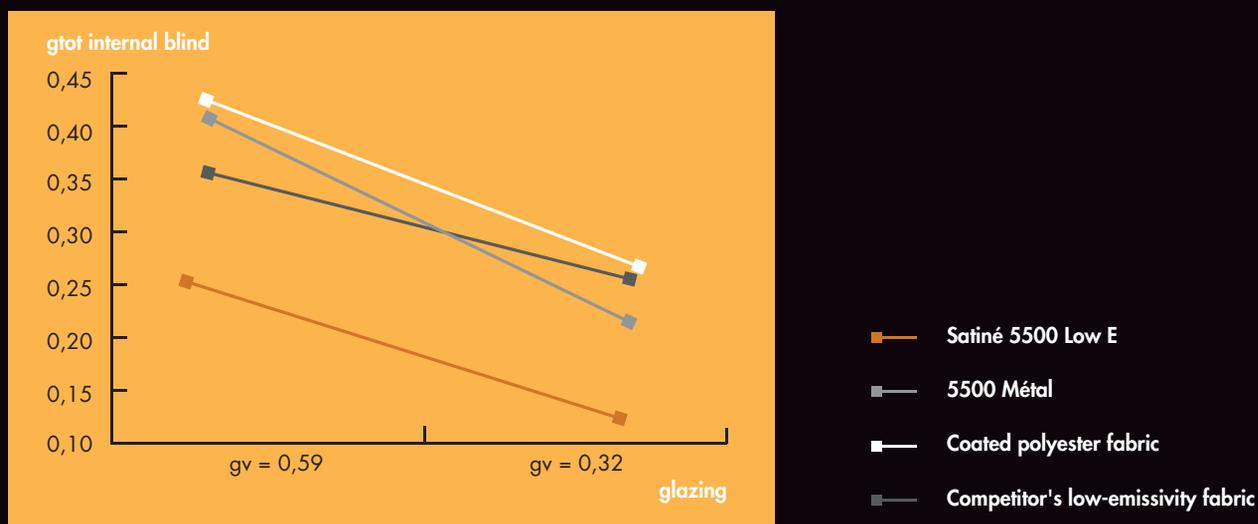
Fabrics tested		Satiné 5500 Low E	5500 Métal - 0707 Pearl	Coated polyester fabric - Pearl	Competitor's low-emissivity fabric
Measurement of heat point by thermal camera after 3 minutes of exposure					
Rs		78	41	44	65
$\epsilon\lambda$		0,15	0,80	0,90	0,35
g_{tot} internal blind	C : gv = 0,59	0,26	0,41	0,42	0,36
	D : gv = 0,32	0,13	0,22	0,27	0,25
Tv		4	8	5	4

Rs: Solar reflectance

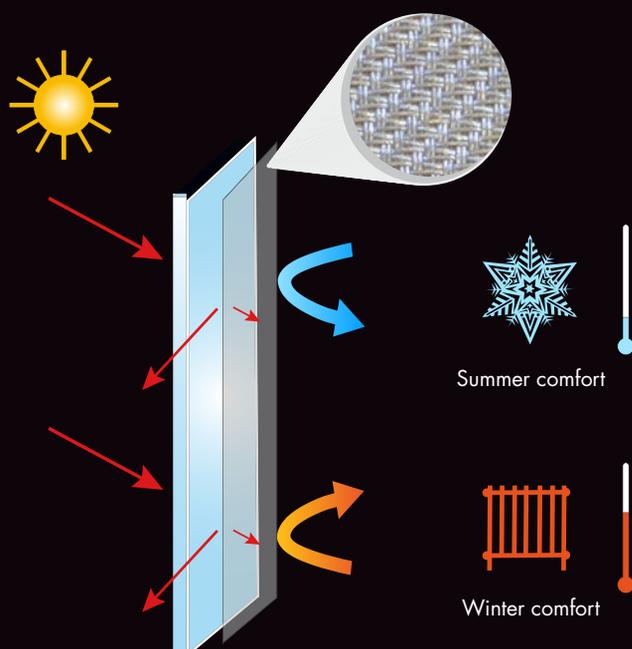
$\epsilon\lambda$: Emissivity

Tv: Visible light transmittance

COMPARISON OF GTOT VALUES for benchmark glazing EN 14501



EMISSIVITY IN FOCUS

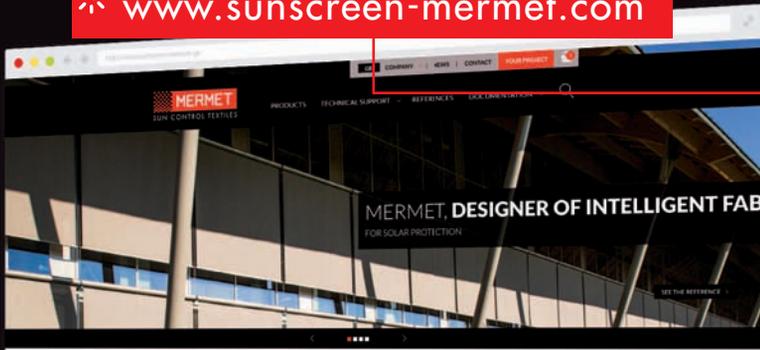


The emissivity of a material is its ability to re-emit the energy received through conduction (heat/cold).

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.

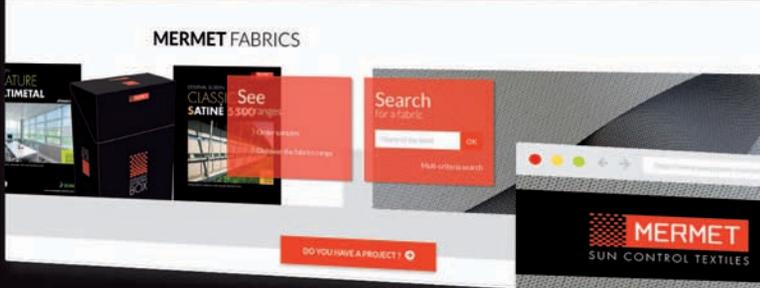
The energy emitted through this reflection is kept inside so reducing air conditioning and heating consumption which in turn helps reduce energy consumption.

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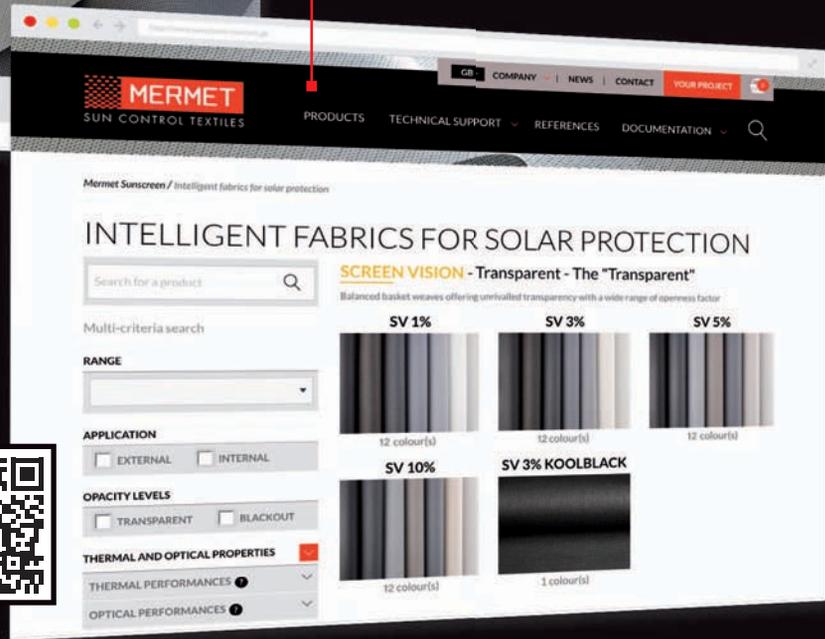


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- All products information available
- A library of references



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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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