

ACOUSTICS

ACOUSTIS[®] 50



COLLECTION
2018
2021

INTELLIGENT FABRICS FOR SOLAR PROTECTION



INTERNAL
APPLICATION

ACOUSTIS® 50

TOP **ACOUSTIC ABSORPTION FABRIC**
THAT IS IMMEDIATELY DECORATIVE

ACOUSTICAL
SOLUTION WITH A
PATENTED
SPECIAL WEFT

ACOUSTICS,
VISUAL AND THERMAL
COMFORT

■ **EXCELLENT ACOUSTIC ABSORPTION:** helps to enhance acoustics whilst blending perfectly with the interior design

■ A single product for **3 FUNCTIONS:**

- **TECHNICAL:** acoustic quality without thermal resistance to ensure a **HEALTHY ATMOSPHERE** in humid surroundings

- **DESIGN:** fabric suitable for all architecture textile application. Excellent printing medium for custom designs

- **COMFORT:** helps create an acoustically comfortable atmosphere

■ A **LIGHT, GOSSAMER-THIN ACOUSTIC SOLUTION**, easy and economical to fit to walls and ceilings

■ **TOTAL GLARE CONTROL:** up to 100% of light rays filtered ($T_v = 0\%$)

■ **THERMAL COMFORT:** up to 87% of solar energy eliminated ($g_{tot} = 0,13$ / glazing $g = 0,32$ et $U = 1,1$)

■ 6 colours available in 250 cm width

■ Excellent **MECHANICAL RESISTANCE** and good dimensional stability for extra-large roller blinds

■ **NON FIBROUS:** no risk of inhalation

■ Resistant to humid environments such as indoor pools

■ Health/Safety: conforms to standard requirements for buildings open to the public

INTERNAL APPLICATIONS



Roller blinds



Roman shades



Decorative panels



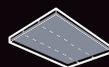
Velums



ZIP Roller blinds



Printable



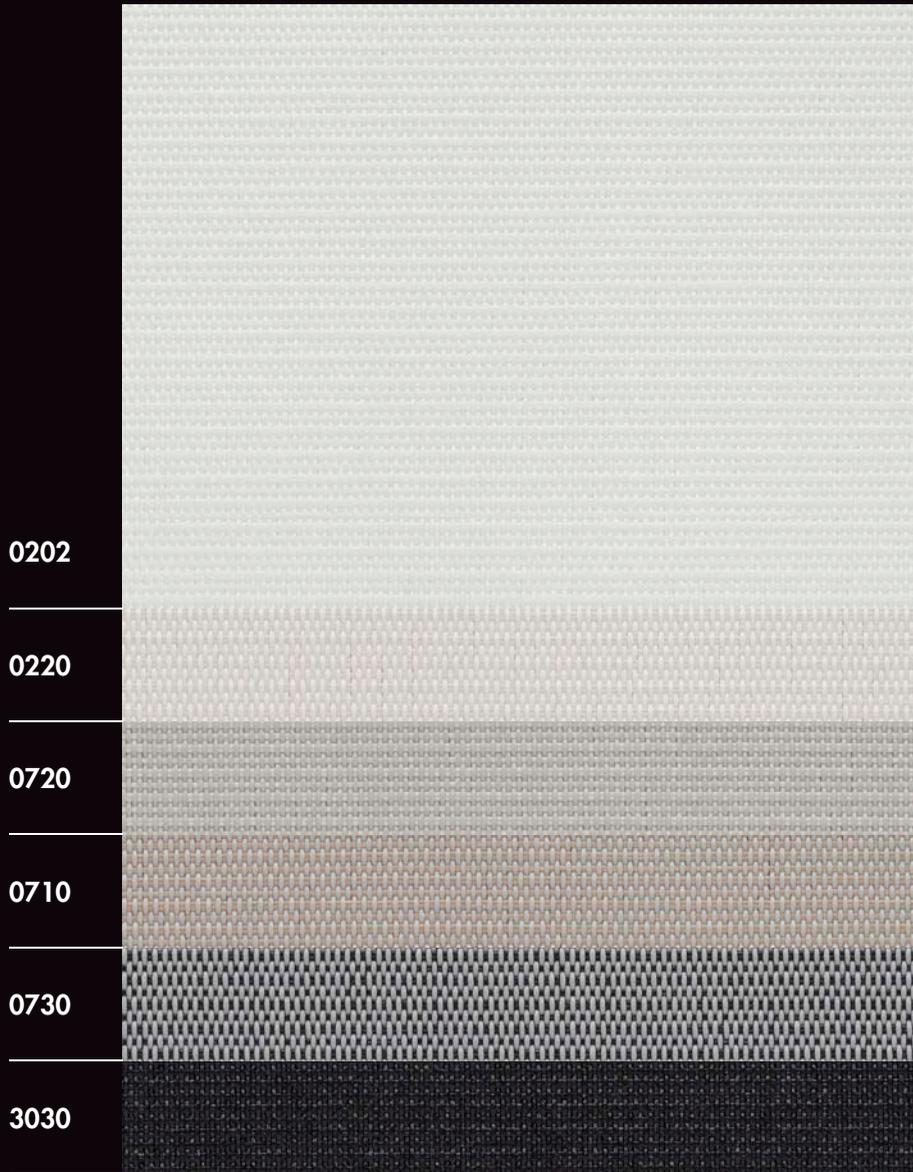
Stretched ceilings



Space fitting

ACOUSTIS® 50

WIDTH: 250 CM



Colours may be slightly different from the actual ones



TECHNICAL DATA

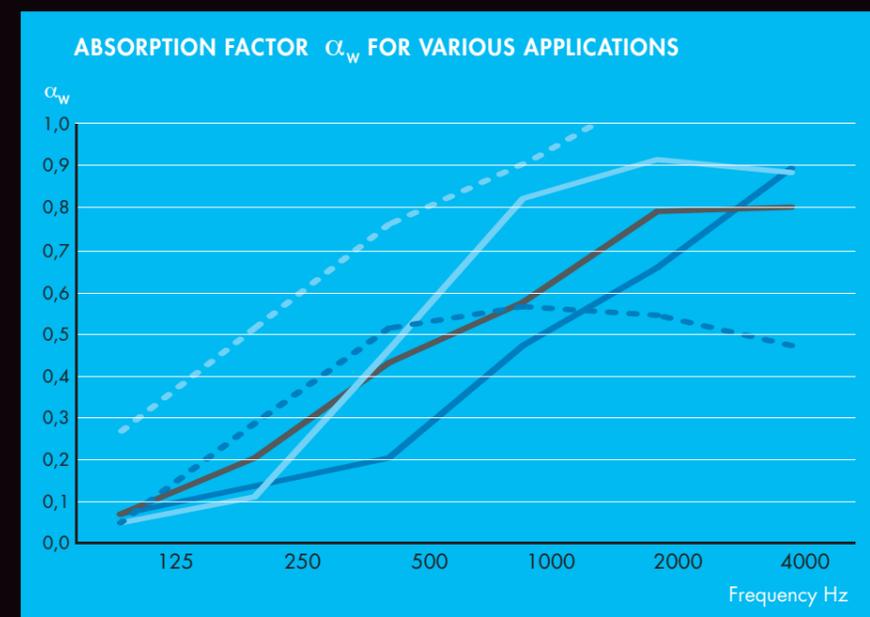
ACOUSTIS® 50			
Acoustic absorption factor α_w	0,35 to 0,8 - NF EN 20354 (ISO 354) - NF EN ISO 11654		
Composition	Coated fibreglass fabric		
Fire, smoke classification and other official test reports*	M1 (F) - NFP 92 503 BS (GB) - 476 Pt 6 & 7 Class 0 Euroclass C-s3-d0 (EU) - EN 13501-1 mounted according to EN 13823 & EN 14716	IMO - MED 2014/90/EU FR (US) - NFPA 701 HHV: 15,7 MJ/kg (6,59 MJ/m ²)	
Health, safety	Greenguard®: Guarantee of indoor air quality (VOC)		
UV screen	100 %		
Width	250 cm		
Weight/m ²	420 g ± 5 % - ISO 2286 - 2		
Thickness	0,50 mm ± 5 % - ISO 2286 - 3		
Colour Fastness to light (Scale of 8)	7/8 - ISO 105 B02 (white not graded)		
Mechanical resistance	Breaking	Tear	Folding
Warp	> 140 daN/5 cm	≥ 5 daN	≥ 80 daN/5 cm
Weft	> 120 daN/5 cm	≥ 3 daN	≥ 50 daN/5 cm
	ISO 1421	EN 1875-3	ISO 1421**
Elongation (warp & weft)	< 5 % - 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

ACOUSTIC ABSORPTION FACTOR α_w



For more details, please ask for the technical report / CETRAM certificate

— **Blind**
 $0,3 < \alpha_w < 0,55$
 (depending on plenum, gap behind the fabric)

— **Panel on load-bearing structure**
 $0,4 < \alpha_w < 0,75$
 (depending on mounting system)

— **Velum**
 $\alpha_w = 0,45$

The acoustic absorption capacity of the material is expressed by its acoustic absorption factor (α_w) in the 3 octave bands: bass (below 200 Hz), medium (200 to 2000 Hz), treble (above 2000 Hz). A high absorbing material will tend towards 1.

THERMAL AND OPTICAL FACTORS in the European standard EN 14501

ACOUSTIS® 50	Thermal factors					Optical factors
	Fabric			Fabric + Glazing /gtot internal blind		Tv
	Ts	Rs	As	C : gv = 0,59	D : gv = 0,32	
0202 White	18	71	11	0,27 ②	0,13 ③	17
0220 Sahara	17	64	19	0,31 ②	0,16 ②	15
0720 Silver	12	41	47	0,41 ①	0,22 ②	9
0710 Sandstone	9	37	54	0,43 ①	0,23 ②	6
0730 Slate Grey	4	24	72	0,48 ①	0,26 ②	3
3030 Black	0	5	95	0,55 ①	0,31 ②	0

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 g_{tot} (glazing + blind)
- Spectral values and thermal & optical factors available on request
- Specification sheet
- A4 samples and prototypes
- Training on fabrics functionality

USE CONFIGURATION

ROLLER BLIND



- Music Academy: Franconville / Häy les Roses (FR)
- Cultural centre: Chabran Draguignan (FR)
- Auditorium: Neuilly sur Seine (FR)

$\alpha_w = 0.55$ (PV Cetram n°N-SC-222_04) - Plenum of 175 mm

VELUM



- Wine bar: Matakana (NZ)

$\alpha_w = 0.45$ (PV Cetram n°N-SC-222_04)

ACOUSTIC BAFFLE



- Convention center DaeGu Exco: Corée
- Alcon offices: Fribourg (DE)

$\alpha_w = 1,1$

FRAME-MOUNTED PARTITION - CEILING



- Restaurant: Cape town (ZA)
- Music Academy: Häy les Roses (FR)
- Theater and Music Academy: Fourmies (FR)

$\alpha_w = 0.7$

STRETCHED WALL



- Auditorium: Pau (FR)
- Multimedia library Cabanis: Toulouse (FR)
- Commercial building Alcatel: Velizy (FR)

$\alpha_w = 0.7$ (PV Cetram n°N-SC-222_04)

WOOD CEILING



- **Swimming pool: Bordeaux (FR)**
- **Regional Music Academy: Cergy Pontoise (FR)**
- **Music Academy: Häy les Roses / Neuilly sur Seine (FR)**
- **Theater and Music Academy: Fourmies (FR)**

$$\alpha_w = 0.7 \text{ (PV Cetram n°N-SC-222_04)}$$

SPINNAKER - TENSILE ARCHITECTURE



- **Escapes Thermal baths: Caldéa (AD)**
- **Auditorium: Pau (FR)**
- **Atrium, Hotel Tulip Farah: Rabat (MA)**
- **Water park: Chaouray (FR)**

$$\alpha_w = 0.7 \text{ (PV Cetram n°N-SC-222_04)}$$

STRETCHED CEILING



- **Music Academy: Franconville (FR)**

$$\alpha_w = 0.7$$

FABRIC ON SUPPORTING STRUCTURE



- **Stock exchange: Amsterdam (NL)**
- **Open-plan offices: Alcatel Nozay (FR)**

$$\alpha_w = 0.75 \text{ (PV Cetram n°N-SC-222_04)}$$

FRAME-MOUNTED PARTITION



- **Music Academy: Häy les Roses / Fourmies (FR)**
- **Multimedia library and Music Academy: St Gaudens (FR)**
- **Cultural centre: St Exupéry, Toulouse / Chabran Draguignan / Neuilly sur Seine (FR)**

$$\alpha_w = 0.7$$

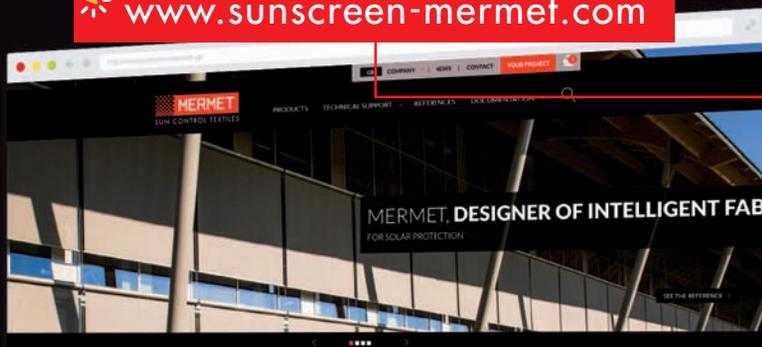
PARTITION, SCREEN WALL



- **Showroom Focal: St Etienne (FR)**
- **Large dining room: Conseil Général 31 (FR)**
- **TF1 Company restaurant: Paris (FR)**

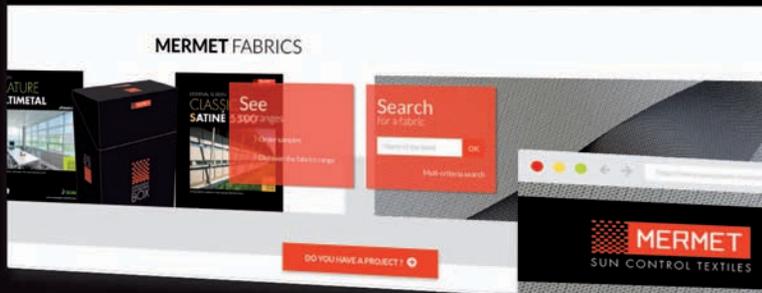
$$\alpha_w = 0.7 \text{ (PV Cetram n°N-SC-222_04)}$$

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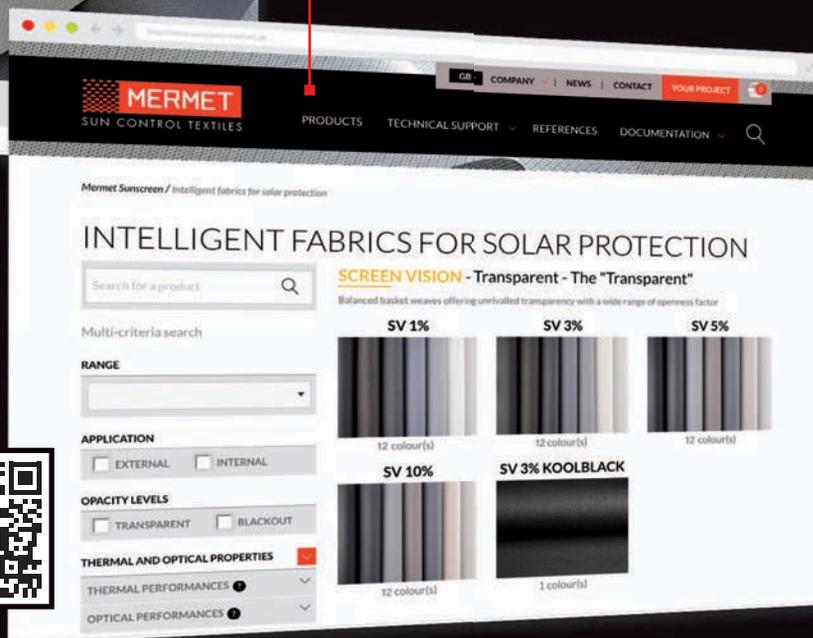


FIND IN 3 CLICKS THE FABRIC BEST SUITED to your project

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



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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



58, chemin du Mont Maurin - 38630 Les Avenières Veyrins-Thuellin - France
Tel. +33(0) 474 336 615 - Fax +33(0) 474 339 729

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