MERMET
SUN CONTROL TEXTILES

ACOUSTICS

# ACOUSTIS® 50

COLLECTION
2018
2021

INTELLIGENT FABRICS FOR SOLAR PROTECTION

INTERNAL
APPLICATION

www.sunscreen-mermet.com

ACOUSTIS® 50

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# 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 (Tv = 0%)
- **THERMAL COMFORT**: up to 87% of solar energy eliminated (gtot = 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

0202

0220

0720

0710

0730

3030

*Colours may be slightly different from the actual ones*

Enduris™ GLASS CORE

GREENGUARD GOLD

FIVE YEAR WARRANTY

LEAD FREE

FIRE RETARDANT

IMO BV 2690

REACH COMPLIANT

10 000 CYCLES

ACOUSTIC COMFORT

## TECHNICAL DATA

| ACOUSTIS® 50 | | | |
|---|---|---|---|
| **Acoustic absorption factor αw** | 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<br>**BS** (GB) - 476 Pt 6 & 7 Class 0<br>**Euroclass C-s3-d0** (EU) - EN 13501-1 mounted according to EN 13823 & EN 14716 | **IMO** - MED 2014/90/EU<br>**FR** (US) - NFPA 701<br>**HHV:** 15,7 MJ/kg (6,59 MJ/m²) | |
| **Health, safety** | **Greenguard® GOLD:** Guarantee of indoor air quality (VOC) | | |
| **UV screen** | 100 % | | |
| **Width** | 250 cm | | |
| **Weight/m²** | 420 g ± 5 % - ISO 2286 - 2 | | |
| **Thickness** | 0,50 mm ± 5 % - ISO 2286 - 3 | | |
| **Colour Fasteness 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 $\alpha_W$

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

The acoustic absorption capacity of the material is expressed by its acoustic absorption factor ($\alpha_W$) 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.

**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**
$\alpha_W = 0,45$

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

| ACOUSTIS® 50 | Thermal factors | | | | | Optical factors |
|---|---|---|---|---|---|---|
| Colours | 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 ❷ | 0,13 ❸ | **17** |
| **0220** Sahara | 17 | **64** | 19 | 0,31 ❷ | 0,16 ❷ | **15** |
| **0720** Silver | 12 | **41** | 47 | 0,41 ❶ | 0,22 ❷ | **9** |
| **0710** Sandstone | 9 | **37** | 54 | 0,43 ❶ | 0,23 ❷ | **6** |
| **0730** Slate Grey | 4 | **24** | 72 | 0,48 ❶ | 0,26 ❷ | **3** |
| **3030** Black | 0 | **5** | 95 | 0,55 ⓪ | 0,31 ❷ | **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).

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

# 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** (PV Cetram n°N-SC-222_04)

## SPINNAKER - TENSILE ARCHITECTURE

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

$\alpha_w$ = **0.7** (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** (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** (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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SCREEN VISION / DESIGN / THERMIC / LOW E | EXTERNAL SCREEN CLASSIC | SCREEN NATURE | BLACKOUT 100 % | ACOUSTICS

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