NEW

M-SCREEN ULTIMETAL®

SCREEN LOW E

‘MSU’

MERMET
SUN CONTROL TEXTILES

SCREEN LOW E

M-SCREEN
ULTIMETAL®

COLLECTION
2018
2021

INTELLIGENT FABRICS FOR SOLAR PROTECTION

INTERNAL
APPLICATION

www.mermet.co.uk

M-SCREEN ULTIMETAL®

THE **HIGH-PERFORMANCE** METALLIC SCREEN

83%

OF SOLAR REFLECTANCE

5%

OF EMISSIVITY

FOR THERMAL COMFORT ALL YEAR ROUND

- Thanks to its metallic side, the fabric M-SCREEN ULTIMETAL® provides a technical combination of **HIGH SOLAR REFLECTION (83%)** and **EXCELLENT VISIBLE TRANSMISSION (Tv: from 3 to 4%)**, **IRRESPECTIVE OF THE COLOUR SELECTED** for the interior ambiance
- Excellent **THERMAL COMFORT:** rejects up to 90% of solar energy (gtot = 0,10 / glazing g = 0,32 and U = 1,1)
- Very low emissivity of 5%. The fabric acts as a heat insulator
- **TOTAL GLARE CONTROL:** up to 97% of light rays filtered, comfort classification 3 (good effect) according to EN 14501 standard
- High quality of **TRANSPARENCY**
- **REDUCED ENERGY CONSUMPTION** for buildings: meets LEED and BREEAM standards
- Water repellent treatment, can be used in a **HUMID** or under **CONDENSATION** conditions **ATMOSPHERE (DOUBLE-SKIN FACADE)**
- **EASY CLEANING** (insect stains)
- **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

M-SCREEN ULTIMETAL®			
Composition	36% Fibreglass - 64% Vinyl		
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 **FR** (US) - NFPA 701	**CLASSE 1** (SP) - EN 13773 **C UNO** (IT) - UNI 9177 **F3 (F)** - NF F 16-101 **HHV:** 13,76 MJ/kg (5,57 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	Up to 97%		
Emissivity	0,05		
Widths	200 - 285 cm		
Weight/m²	405 g ± 5% - ISO 2286 - 2		
Thickness	0,46 mm ± 5% - ISO 2286 - 3		
Colour Fasteness to light (scale of 8)	Metalized side: 8, colour side: 7 - ISO 105 B02 (white not graded)		
Mechanical resistance	**Breaking**	**Tear**	**Folding**
Warp	> 120 daN/5 cm	≥ 5 daN	≥ 50 daN/5 cm
Weft	> 140 daN/5 cm	≥ 4 daN	≥ 50 daN/5 cm
	ISO 1421	EN 1875-3	ISO 1421**
Elongation (warp and 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

THERMAL AND OPTICAL FACTORS in the European standard EN 14501

M-SCREEN ULTIMETAL® - OF 3%	**Thermal factors**					**Optical factors**
	Fabric			**Fabric + Glazing / gtot internal blind**		**Tv**
Colours (metalized side factors)	**Ts**	**Rs**	**As**	**C : gv = 0,59**	**D : gv = 0,32**	
0202 White	4	**83**	13	0,23 ❷	0,11 ❸	**4**
0220 White Linen	4	**83**	13	0,23 ❷	0,10 ❸	**4**
0702 Pearl White	4	**83**	13	0,24 ❷	0,11 ❸	**4**
0707 Pearl	4	**83**	13	0,24 ❷	0,12 ❸	**4**
3001 Charcoal Grey	4	**83**	13	0,23 ❷	0,11 ❸	**3**
3010 Charcoal Sable	4	**83**	13	0,23 ❷	0,11 ❸	**3**
3030 Charcoal	4	**83**	13	0,23 ❷	0,11 ❸	**3**

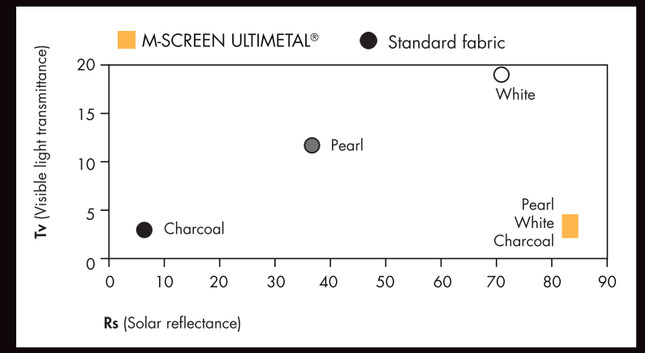
gv = 0,59: Solar factor of standard glazing (C), low-emission 4/16/4 double glazing filled with Argon (U value thermal transmittance = 1,2 W/m²K).
gv = 0,32: Solar factor of standard glazing (D), reflecting low-emission 4/16/4 double glazing filled with Argon (U value thermal transmittance = 1,1 W/m²K).

Classification according to EN 14501 standard: ❶ 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".

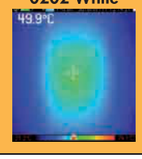
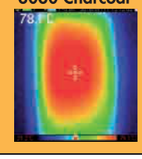
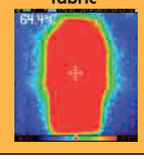
Performance of **M-SCREEN ULTIMETAL ®**

Thanks to its metallic side, the fabric M-SCREEN ULTIMETAL® provides a technical combination of high solar reflection (83%) and excellent visible transmission (Tv ≤ 4%), irrespective of the colour selected for the interior ambiance. Thermal comfort is total and both glare and unwanted reflections are fully controlled.

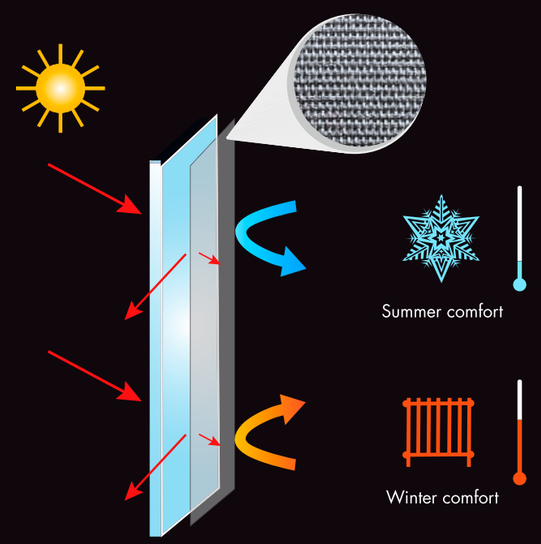


The fabric M-SCREEN ULTIMETAL® compared to standard fabric

COMPARISON OF THERMAL AND OPTICAL PERFORMANCES

Fabrics tested Measurement of heat point by thermal camera after 3 minutes of exposure		**M-Screen Ultimetal® 3030 Charcoal**	**M-Screen 8503 0202 White**	**M-Screen 8503 3030 Charcoal**	**Metalized polyester fabric**
					
Rs		83	69	6	70
ελ		**0,05**	0,89	0,89	0,35
gtot internal blind	C : gv = 0,59	0,23	0,29	0,56	0,28
	D : gv = 0,32	0,11	0,13	0,31	0,13
Tv		3	19	3	4
OF		3	3	3	2

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



EMISSIVITY IN FOCUS

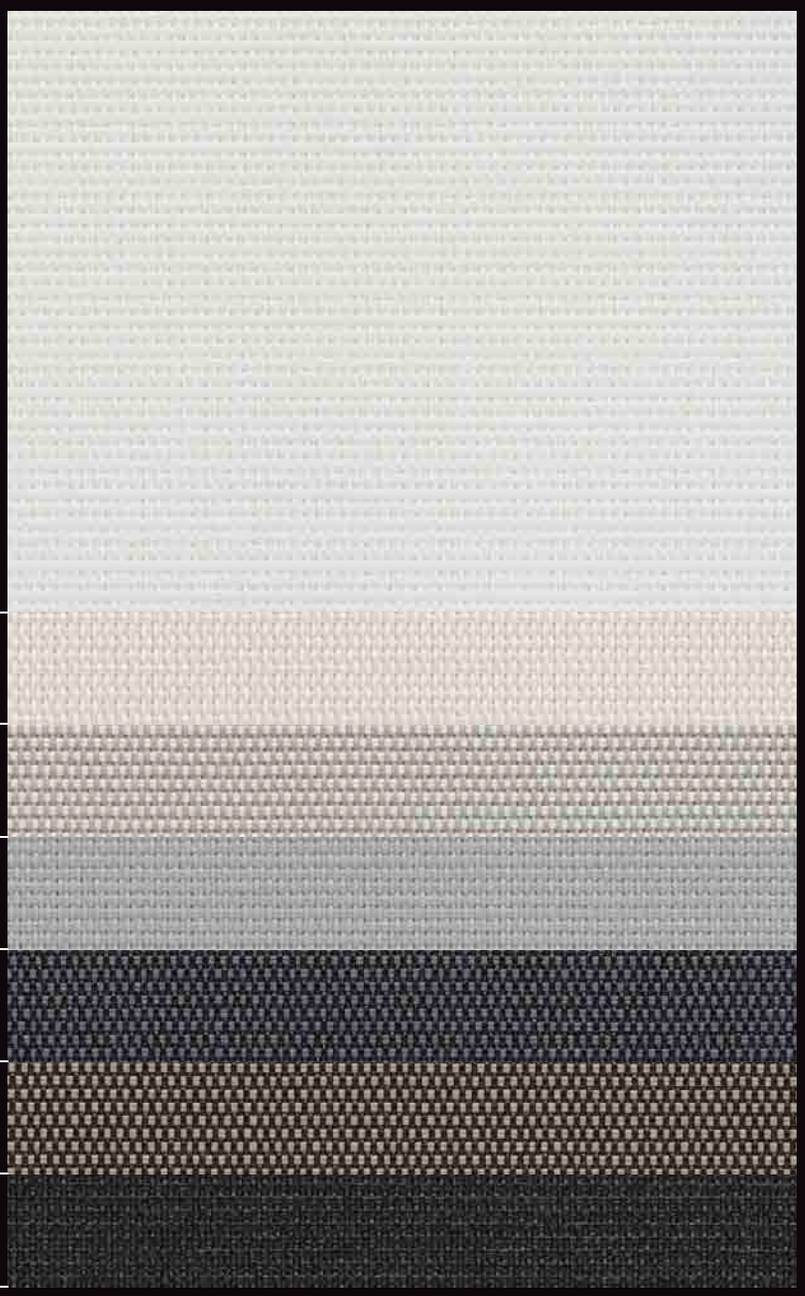
The emissivity of a material is its ability to re-emit the energy received through conduction (heat/cold).

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.

M-SCREEN ULTIMETAL®

WIDTHS: 200 - 285 CM



0202

0220

0702

0707

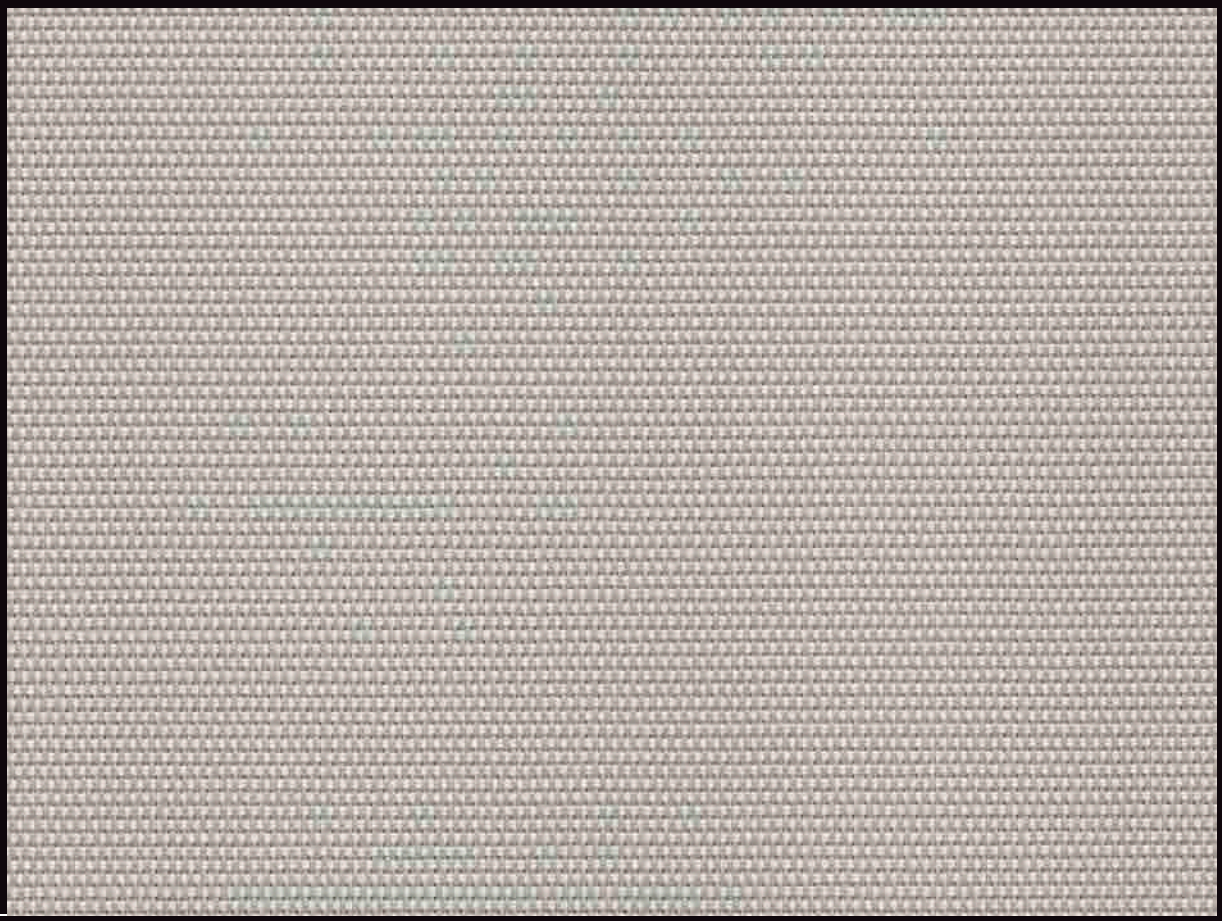
3001

3010

3030

Colours may be slightly different from the actual ones

M-SCREEN ULTIMETAL®



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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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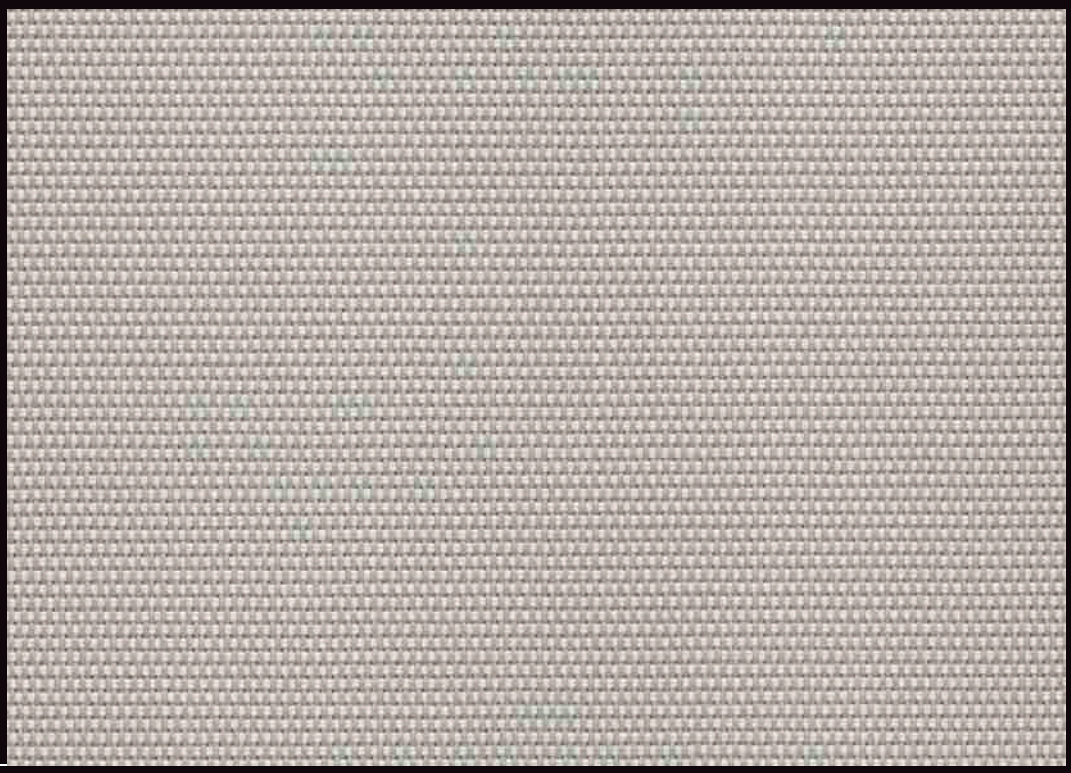

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INTERNAL APPLICATION

Roller blinds

Enduris™ GLASS CORE

GREENGUARD GOLD

FIVE YEAR WARRANTY

ANTIBACTERIAL

LEAD FREE

FIRE RETARDANT

REACH COMPLIANT

10 000 CYCLES

LOW EMISSIVITY

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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.
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SCREEN VISION / DESIGN / THERMIC / LOW E | EXTERNAL SCREEN CLASSIC | SCREEN NA | BLACKOUT 100 % | ACOUSTICS

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