5.2 W/T

Ext Int

M1 B1

5 YEARS WARRANTY

Calcutta

Wall & Window

TOP QUALITY SCREENS

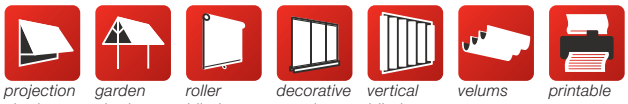
Alkenz

RAY-SCREEN **5.2 W/T**

RAY-SCREEN

POLYESTER-PVC SCREENS

RAY-SCREEN 5.2 W/T is made made of PVC coated polyester yarns. It is developed for interior and exterior use. The fabric can be used for a variety of applications such as projection shades, garden shades, roller blinds, decorative panels, vertical blinds, velums…



projection shades *garden shades* *roller blinds* *decorative panels* *vertical blinds* *velums* *printable*

DEDICATE TO HIGH QUALITY AND SERVICE

RAY-SCREENS are the ideal shading solution. They provide see-thru visibility yet minimize all the negative effects of the sun.
RAY-SCREENS are vinyl coated polyester woven fabrics that offer an exciting new alternative to ordinary window coverings. They provide special features such as excellent energy saving, heat gain & glare reduction, fire retardancy, long-lasting durability while maintaining outside view and offering more natural comfort.
RAY-SCREENS block more than 80% of solar heat, 98% of harmful UV while they reduce 25-40% energy consumption in winter. They provide an excellent conservation of the warmed indoor air in winter. Normal fabric curtains block only 20-30% of the solar heat and 15-30% of UV.
RAY-SCREENS provide privacy but maintain the visual contact with the outside.

RAY-SCREENS HAVE THE FOLLOWING BENEFITS

flame proof (M1 and B1 fire certificate)
superior dimensional stability
flatness of the fabric (no curling or waving)
high tensile strength
excellent UV stability
heat resistance
weather resistance
wear resistance
tear resistance
durability
easy maintenance
energy saving
human & ecologically-friendly (no glass fibre particles by slitting)
consistency of raw polyester material price

CONFIDENCE IN TEXTILES Tested for harmful substances according to Oeko-Tex Standard 100 No. SEWO 042669 TESTEX Zurich
GREENGUARD Indoor Air Quality Certified
GREENGUARD Children & Schools Indoor Air Quality Certified
5 YEARS WARRANTY
M1
B1
ASTM G21
ASTM G22

RAY-SCREEN 5.2 T902

COMPOSITION
ISO 1833
27% Polyester
73% PVC

YARN COUNT
ISO 7211/2
warp: 14 threads/cm ±5%
weft: 14 threads/cm ±5%

COLOURFASTNESS TO LIGHT
ISO 105 B02
blue scale
grade 8

ROLL LENGTH
30m
width 300cm: 20m

TENSILE STRENGTH
ISO 1421
warp: 205 daN/5cm (5.2 W) - 190 daN/5cm (5.2 T)
weft: 210 daN/5cm (5.2 W) - 218 daN/5cm (5.2 T)

FLAMMABILITY
DIN 4102 Class B1
NF P 92-507 M1

FABRIC THICKNESS
ISO 5084
0,70mm ±5%

TEARING STRENGTH
ISO 4674
warp: 13,1 daN (5.2 W) - 12,4 daN (5.2 T)
weft: 13,0 daN (5.2 W) - 10,9 daN (5.2 T)

HUMAN ECOLOGY
Oeko-tex® 100 class IV

FABRIC WEIGHT
ISO 3801
520g/m² ±5%

OPENNESS FACTOR
MICROSCOPIC METHOD
average 3%

HEALTH / SAFETY
Greenguard® Indoor Air Quality
ASTM G21 - ASTM G22 Anti Bacteria

FABRIC WIDTH

RAY-SCREEN 5.2	W001	W002	W003	T001	T002	T003	T301	T904	T901	T902
fabric width 160cm	■	■	■	■	■	■	■	■	■	■
fabric width 220cm	■	■	■	■	■	■	■	■	■	■
fabric width 250cm	■	■	■	■	■	■	■	■	■	■
fabric width 300cm	■	■	■					■		
verticals width 8,9 cm	■	■	■	■	■	■	■	■	■	■
verticals width 12,7 cm	■	■	■	■	■	■	■	■	■	■

Special widths and verticals available on request.

LEGEND: ■ = available

All data are purely indicative and non contractual.

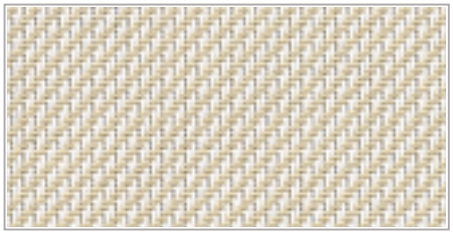
COLOURS AND PATTERNS

RAY-SCREEN 5.2 W001

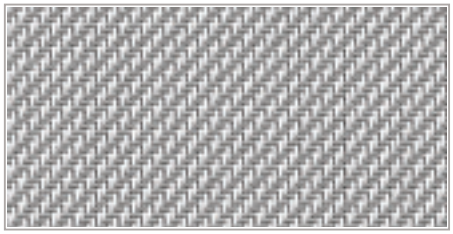
RAY-SCREEN 5.2 W002

RAY-SCREEN 5.2 W002 BACK

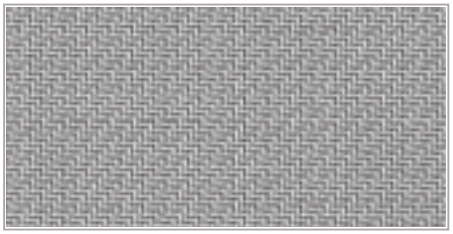
RAY-SCREEN 5.2 T002



RAY-SCREEN 5.2 T003

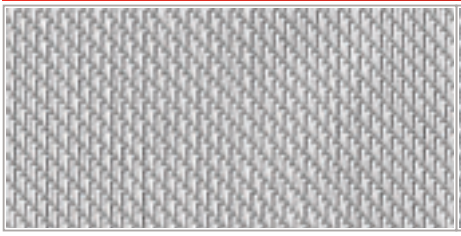


RAY-SCREEN 5.2 T301



Colours in the prints may be slightly different from the actual ones.

RAY-SCREEN 5.2 W003

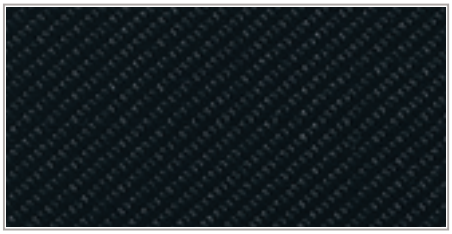


RAY-SCREEN 5.2 W003 BACK

RAY-SCREEN 5.2 T001

RAY-SCREEN 5.2 T904

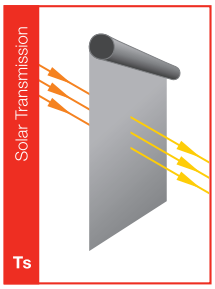
RAY-SCREEN 5.2 T901



RAY-SCREEN 5.2 T902

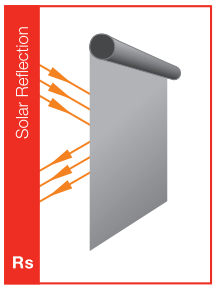
GUIDE

Solar transmittance (%), proportion of solar radiation transmitted through the fabric.



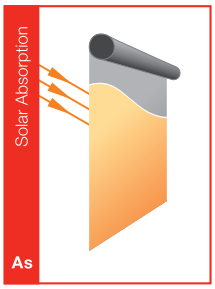
This factor measures the proportion of solar energy transmitted through the fabric. A low percentage means the fabric performs well at reducing solar energy.

Solar reflectance (%), proportion of solar radiation reflected by the fabric.



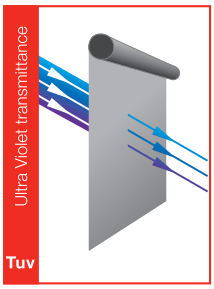
This factor measures the proportion of solar radiation reflected by the fabric. A high percentage means the fabric performs well at reflecting solar energy.

Solar Absorptance (%), proportion of solar radiation absorbed by the fabric.



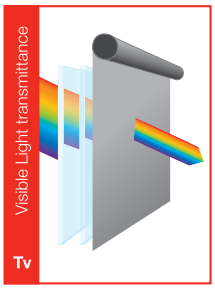
This factor measures the proportion of solar radiation absorbed by the fabric. A low percentage means the fabric absorbs little solar energy.

UV-transmittance (%), percentage of ultraviolet light radiated through the fabric.



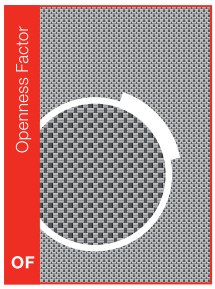
This factor measures the UV blocking capabilty. A low figure demonstrates a good blocking capacity.

Visible light transmittance (%), percentage of light radiated through the fabric.



This factor measures the percentage of visible light coming through the fabric, seen by the naked eye. It is related to the amount of light brightness a person receives through a glazing system. A low figure shows a very efficient fabric.

Openness Factor (%), percentage of holes in the fabric.



This factor measures the proportion of holes in a woven fabric. This parameter, together with other technical properties of the fabric, should be considered when determining the degree of visibility and heat and glare control, that the fabric offers. The openness factor is often expressed as an average. A low OF indicates that the fabric has a very close weave.

Ext External solar protection

g value Solar factor of the glazing: solar energy which actually penetrates into a room through the glazing.

Int Internal solar protection

g tot Total solar factor: solar energy which actually penetrates into a room through the blind and glazing. A low value means good thermal performance.

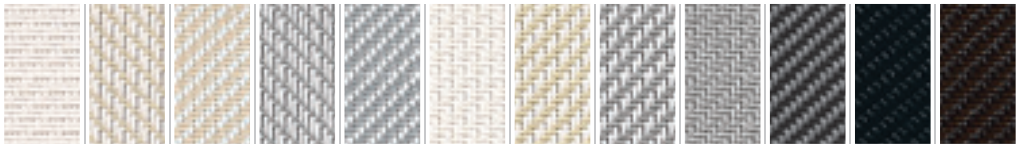
Fc gtot/g - Shading factor: ratio of the solar factor of the combined glazing and solar protection device (gtot) to the glazing alone.

TYPICAL DATA FOR GLAZING

PRODUCT	THERMAL TRANSMITTANCE W/(m²K)	TOTAL SOLAR ENERGY TRANSMITTANCE	LIGHT TRANSMITTANCE	LIGHT REFLECTANCE
	Ug	g	Tv	Rv
single clear glass	5,70	0,85	0,90	0,08
double clear glass	3,00	0,75	0,82	0,15
triple clear glass	2,00	0,65	0,75	0,20
double clear glass with low emissivity coating	1,60	0,72	0,75	0,17

EN 13363-1 Solar protection devices combined with glazing. Calculation of solar and light transmittance. Part 1: simplified method.

THERMAL AND OPTICAL FACTORS



RAY-SCREEN 5.2			W001	W002		W003		T001	T002	T003	T301	T904	T901	T902
					BACK		BACK							
		Ts	18	10	10	7	7	17	14	7	5	4	3	3
		Rs	66	63	58	51	38	68	57	45	33	5	7	7
		As	16	27	32	42	55	15	29	48	62	91	90	90
		Tuv	4	1	1	3	3	3	4	3	5	4	3	3
		Tv	12	5	5	5	5	10	9	5	6	4	4	4
		OF	3	3	3	3	3	3	3	3	3	3	3	3
single clear glass	Ext	gtot	0,19	0,13	0,14	0,12	0,14	0,18	0,17	0,13	0,13	0,15	0,16	0,15
	Ext	Fc	0,22	0,15	0,16	0,14	0,17	0,21	0,20	0,15	0,16	0,18	0,19	0,18
	Int	gtot	0,34	0,34	0,37	0,40	0,46	0,33	0,38	0,43	0,48	0,62	0,63	0,62
	Int	Fc	0,40	0,40	0,43	0,47	0,54	0,39	0,45	0,50	0,57	0,72	0,74	0,72
double clear glass	Ext	gtot	0,16	0,11	0,11	0,10	0,11	0,16	0,14	0,11	0,10	0,11	0,12	0,11
	Ext	Fc	0,22	0,15	0,15	0,13	0,15	0,21	0,19	0,14	0,14	0,15	0,17	0,15
	Int	gtot	0,36	0,37	0,39	0,42	0,48	0,35	0,40	0,45	0,50	0,61	0,62	0,61
	Int	Fc	0,48	0,49	0,52	0,56	0,64	0,47	0,53	0,59	0,66	0,82	0,83	0,82
triple clear glass	Ext	gtot	0,14	0,09	0,10	0,08	0,09	0,14	0,12	0,09	0,08	0,09	0,10	0,09
	Ext	Fc	0,22	0,14	0,15	0,13	0,14	0,21	0,19	0,14	0,13	0,14	0,15	0,14
	Int	gtot	0,36	0,37	0,38	0,41	0,45	0,35	0,39	0,43	0,47	0,56	0,57	0,56
	Int	Fc	0,56	0,56	0,59	0,63	0,70	0,54	0,60	0,66	0,72	0,86	0,88	0,86
double clear glass with low emissivity coating	Ext	gtot	0,15	0,10	0,10	0,08	0,09	0,14	0,13	0,09	0,08	0,08	0,09	0,08
	Ext	Fc	0,21	0,13	0,14	0,11	0,13	0,20	0,18	0,12	0,11	0,11	0,13	0,11
	Int	gtot	0,37	0,38	0,40	0,43	0,49	0,36	0,41	0,46	0,51	0,63	0,64	0,63
	Int	Fc	0,51	0,52	0,56	0,60	0,68	0,50	0,57	0,64	0,71	0,88	0,89	0,88

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STORAGE CONDITIONS

- Store in place where the temperature and level of humidity are as constant as possible (temperature: -5°c – +35°c and humidity: below 70%).
- Rolls should be stored horizontally, never store vertically (might cause serious damage to the edges).
- Do not remove outer hard-board carton tubes for long-term storage.
- Do not put heavy weight materials on the fabrics.
- Do not pile up.
- Never fold fabrics.

TIPS FOR MAKING BLINDS

- Recommended to use laser or crush-cut knife.
- Recommended to use ultrasonic to cut fabrics to avoid splitting the core.
- The fabric must be properly squared before it is made up, especially for large blinds or structures.
- Fabrics must be cut at perfectly right angles.
- Stitching is not recommended, better to weld the fabric, use special tape, high frequency or thermal welding machine especially made for this type of fabrics.
- Reinforcing both edges is recommended. Especially for exterior use, reinforcement is strongly recommended.

CARE INSTRUCTIONS

- Remove dust with soft brush, vacuum cleaner or compressed air.
- Do not scrub.
- Do not use solvents or any abrasive substance that might damage the coating of the fabric.
- Clean with soapy water with sponge or soft brush.
- High pressure water can be used for external blinds.
- Rinse with clean water.
- Leave the blind down until completely dry.

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