3000 VIEW R, RS Series

SUNSHADOW 3000 VIEW R, RS Series

Alkenz

Enviroment Friendly

Indoor Air Quality

Flammability

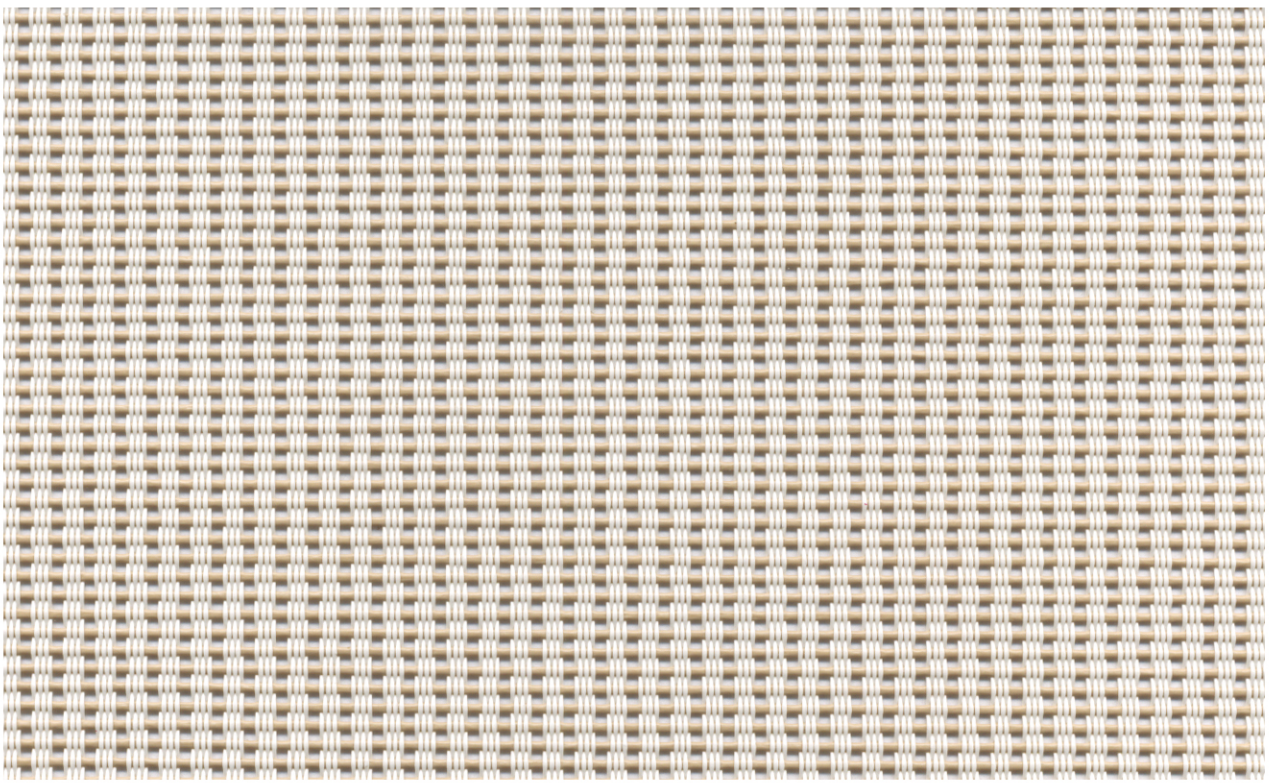
M1
B1
B2
NFPA 701

Anti Bacteria

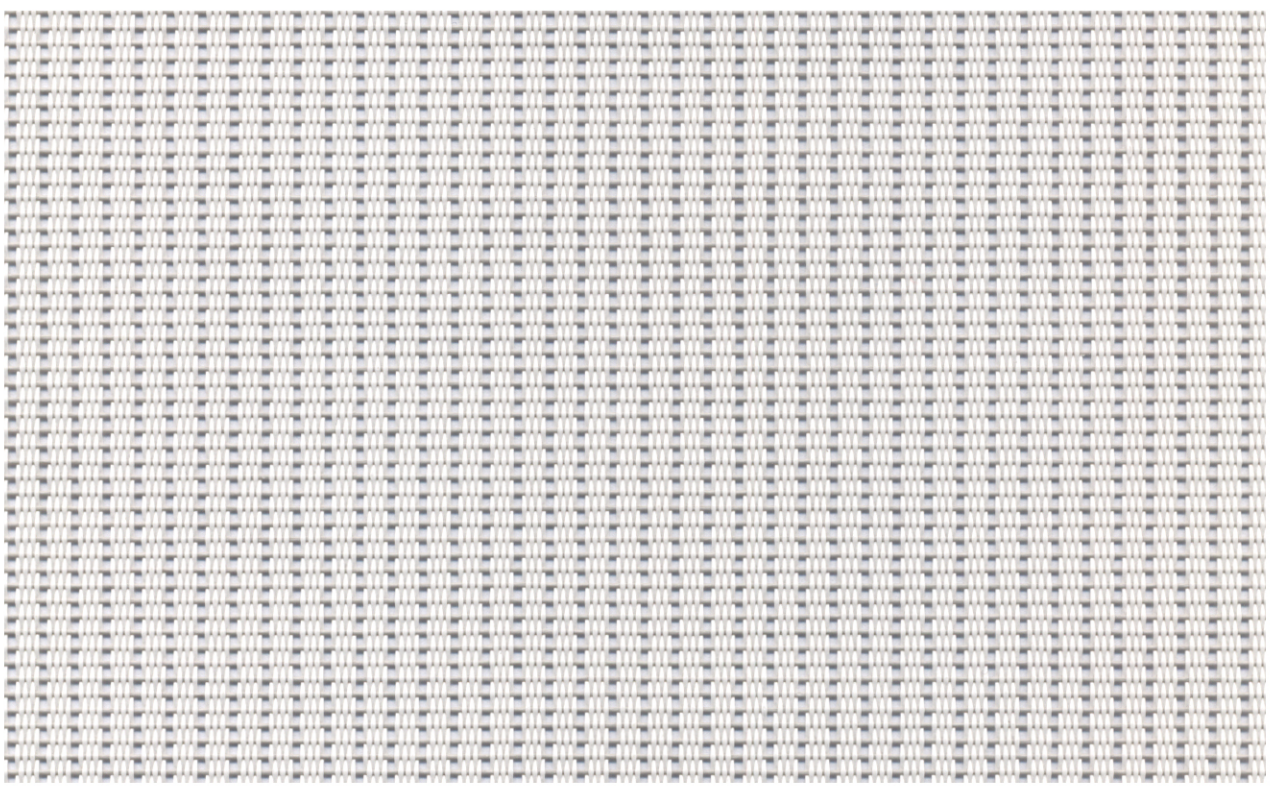
ASTM G21
ASTM G22

Energy Saver

Fragrance-free
Non-toxic



3000 R102 - White / Sable



3000 RS03 - White/Light Grey

Technical Information

Yarn	3000 R	3000 RS	
Technical specifications	Average Values		Standard
Openess Factor	15%	20%	Microscopic Method
Composition	Green PVC 73% Polyester 27%	Green PVC 75% Polyester 25%	ISO 1833-1:2006
Diameter	0.30 mm	0.30 mm	
Environment			Oeko-tex standard 100

Fabric			
Technical specifications	Average Values		Standard
Thickness	0.83 mm	0.52 mm	ISO 5084-1996
Weight	455 g/m²	320 g/m²	SO 3081-1977
Fabric Count (sq.inch)	56ends X 16picks	54ends X 19picks	ISO 7211/2-1984
Tensile Strength (daN/5cm)	Warp 180, Weft 188	Warp 179, Weft 195	ISO 1421-1998
Tearing Strength (daN)	Warp 14.1, Weft 14.0	Warp 8.4, Weft 15.4	ISO 4674-1977
Colour fastness	8 Grade ISO Blue Scale		ISO 105 B02:1994
Fire resistance	M1		NF P 92-512 (EU)
	FR		NFPA 701 (USA)
	Type B		BS 5867 (U.K)
	B1, B2		DIN 4102 (GERMANY)
	AS/NZS		ISO 1530.3-1999 (AUSTRALIA)
	KFI		ISO 5659 (KOREA)
Standard Width	2.0M / 2.5M / 3.0M		
Cutting	best result with crush cutting		
Welding	thermal, HF, ultrasonic, sewing		
Cleaning	remove dust from the fabric surface, then wipe gently with a humid soft sponge while using a mild detergent		

Application

Internal blinds

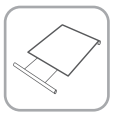

Roller Blinds


Roof light Blinds


Roman Shades

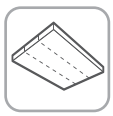

Decorative Panels


Velums


Skylight Blinds

Tensile structures


Frame-Mounted


Stretched Ceilings


Fixed or Mobile Partitions, Walls and Separations


Shaped Structures


Volume Structures

Flooring & Wallcovering

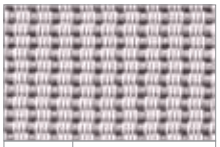
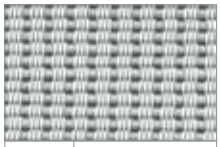
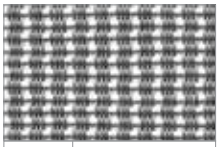
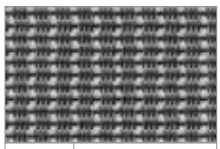
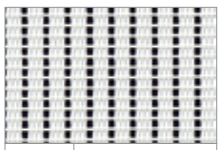
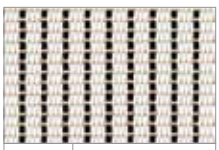
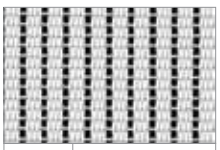

Wallcovering Partitions


Rolls Flooring


Tiles Flooring

Color & Range

Colors & Patterns

				
R100 White White	R102 White Sable	R103 White Grey	R105 White Blue Grey	R401 Dim Grey Dim Grey
				
R402 Dim Grey Light Grey	R900 Charcoal Charcoal	R902 Charcoal Bronze		
				
RS01 White White	RS02 White Sable	RS03 White Light Grey		

The data in this document is for information only & may not be considered binding.
Colors in the prints may be slightly different from the actual ones.

The main thermal and optical factors

The regulations value the gtot factor for thermal comfort and Tv for visual comfort.

> Thermal factors

Ts Solar transmittance: proportion of solar energy transmitted through the fabric. A low percentage means the fabric performs well at reducing solar energy.

Rs Solar reflectance: proportion of solar radiation reflected by the fabric. A high percentage means the fabric performs well at reflecting solar energy.

As Solar absorptance: proportion of solar radiation absorbed by the fabric. A lowpercentagemeans the fabric absorbs little solar energy.

Solar radiation is always partially transmitted through, absorbed or reflected by the fabric. The sum of all 3 equals 100.

Ts + Rs + As = 100% of solar energy.

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

> Optical factors

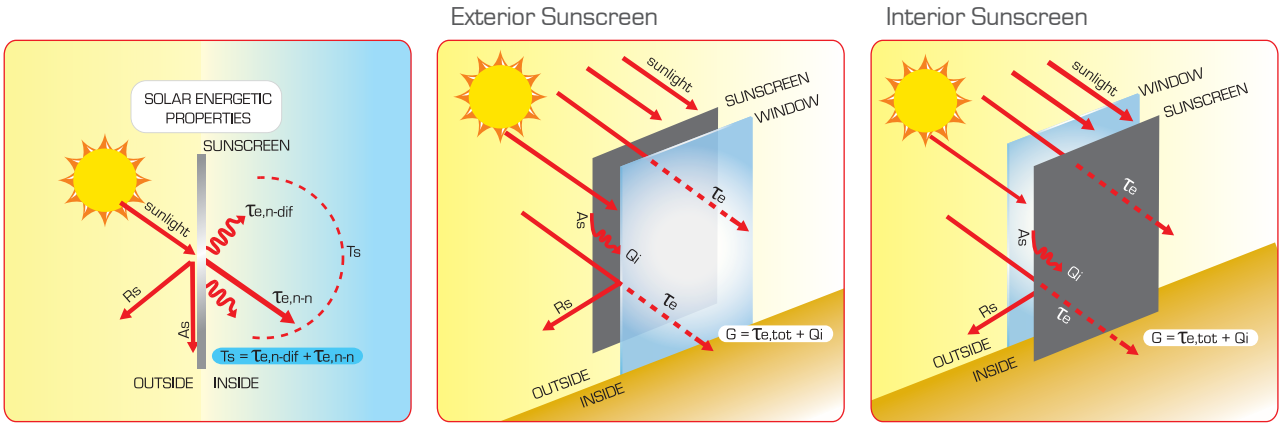
OF Openness Factor: relative area of the openings in the fabric (hole). It is considered as independent of the colour. For fabrics with the same weave, it should be measured using the darkest colour in the range.

Tv Visible light transmittance: total percentage of light radiated through the fabric over a wavelength of 380 to 780 nm (nanometers), called the visible spectrum (total illumination).

Thermal and optical factors

Description Colours		Thermal factors						Optical factors	
		Fabric			Fabric + glazing				
		Ts	Rs	As	g - value			Tv	Tuv
					1/8" CL	1/4" C/L	1/4" HA		
R100	White White	33	56	11	0.39	0.38	0.33	29	18
R102	White Sable	27	49	24	0.42	0.41	0.34	23	16
R103	White Grey	26	43	31	0.45	0.44	0.36	25	18
R105	White Blue Grey	26	44	30	0.45	0.44	0.36	24	17
R401	Dim Grey Dim Grey	20	26	54	0.55	0.52	0.40	20	15
R402	Dim Grey Light Grey	19	20	61	0.57	0.55	0.42	19	16
R900	Charcoal Charcoal	15	4	81	0.66	0.63	0.45	17	14
R902	Charcoal Bronze	14	4	82	0.66	0.63	0.45	15	12
RS01	White White	20	55	10	0.36	0.36	0.34	28	17
RS02	White Sable	19	51	27	0.37	0.36	0.34	23	16
RS03	White Light Grey	17	48	31	0.40	0.38	0.36	26	18

Working of a Sunscreen



Rs : Solar reflectance, As : Solar absorptance, Ts : Solar transmittance, τe : Direct Solar transmittance, Qi : Secondary heat transfer factor
G : G-factor = total solar energy transmittance, τe,n-dif : Diffuse solar transmittance, τe,n-n : Normal solar transmittance

Influence of colours

The choice of the colour has direct influence on the criteria which justify the use of sunscreen protection:

- Protection against visible light, expressed by the factor Tv.
- Protection against sun-energy, expressed by the G value.
- Protection against secondary heat, expressed by the factor Qi.
- Protection against UV- light, expressed by the factor Tuv.

The G-factor

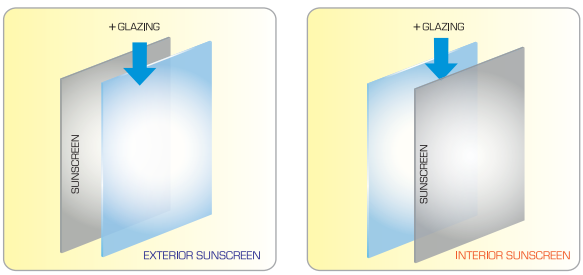
Sunscreens are always used in combination with a glazing. These together will prevent a large quantity of energy, sent by the sun to the earth, which is indicated by the: Total Solar Energy Transmittance, or G-factor.

The G value is the ratio between the total solar energy transmitted into a room through a window and the incident solar energy on the window.
The Gtot is the solar factor of the combination of glazing and solar protection device.
The Gv is the solar factor of the glazing alone.

The shading coefficient is defined as the ratio of the solar factor of the combined glazing and solar protection device Gtot to that of the glazing alone Gv.

The total solar energy transmitted through a window consists of two parts:
1) Radiation: measured by the solar transmittance: τe,tot
2) Heat: measured by the secondary heat transfer: Qi

G = τe,tot + Qi
The factor τe,tot, is quantity of energy, which will pass the combination solar protection device and window.
The factor Qi is the quantity of heat which is released by the absorption of energy in the sunscreen protection system = combination sunscreen + glazing.



The G-factor is the most important factor to explain the efficiency of a combination sunscreen + glazing, as protection against the energy of the sun. The G-factor divided into his components explains the difference in efficiency between exterior and interior sunscreen.

G = τe,tot + Qi
The direct solar transmittance τe,tot is the same for interior and exterior use of sunscreens.
The secondary heat factor Qi for interior sunscreen is bigger then for exterior sunscreen. For interior use, the heat, produced by the absorption of energy, will be transmitted to the room inside. By exterior use, the heat will be transmitted to the outside, without any inconvenience at the inside.

Also the colour of the sunscreen has an influence on the G-factor.
Dark colours will absorb a lot of sun energy and will transmit this to heat. If the screen is used for exterior, heat will have no influence inside the room, contrary to a screen used for interior. This is why a darker screen is ideal for exterior use and a lighter screen for interior use.

Alkenz

Alkenz Co., Ltd.
Sales Office : B 903, Techno Park, 151 Yatap, Bundang, Sungnam, Gyonggi 463-760, Korea
Main Office & Factory : 411-2, Bonsan, Jinyoung, Gimhae, Gyongnam, Korea
Phone : + 82.31.486.8567 Facsimile : + 82.31.486.2518 E-mail : sales@alkenz.com
www.alkenz.com