4000 CB GREEN COMBI

OPENNESS FACTOR 1%

KOPER

4000 CB GREEN COMBI

SUNSHADOW

FABRIC

Technical specifications	Average Values	Standard
Openess Factor	1%	Microscopic Method
Composition	Green PVC 75% Polyester 25%	ISO 1833-1:2006
Environment		· Oeko-tex standard 100 · GREENGUARD Children & Schools
Thickness	0.76mm (±5%)	ISO 5084-1996
Weight	302g / m^2 (±5%)	ISO 3081-1977
Fabric Count (sq.inch)	18ends X 80picks (±5%)	ISO 7211/2-1984
Tensile Strength (daN/5cm)	Warp 55.5, Weft 268.4 (±5%)	ISO 1421-1998
Tearing Strength (daN)	Warp -, Weft 9.8 (±5%)	ISO 4674-1977
Colourfastness	7 - 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)
	B1	GB / 5T455-1997(CHINA)
	KFI	ISO 5659 (KOREA)
Standard Width	2.0M / 2.5M	
Cutting	best result with crush cutting	
Welding	thermal, HF, ultrasonic, sewing	
Cleaning	remove dust from the fabric surface, then wipe gently with a humind soft sponge while using a mild detergent	

BREATHEEASY

Using a very clever scientific process, our factory has removed odor causing components from their specially formulated non-toxic PVC compound. We call it Low Odor Emission Technology(LOE). As a result, the entire Sunshadow® Sunscreen range has earned GREENCUARD® endorsement for Indoor Air Quality. Unlike most other Blind Fabrics, Sunshadow® Sunscreen has minimal odor and therefore is has not been linked to complaints from consumers who develop headaches or feel unwell after inhaling strong odors from other Blind Fabrics. LOE Technology is ideal for residential environments, but particularly beneficial for commercial developments where odors from Blind Fabrics can linger and circulate through air-conditioning making it uncomfortable for office workers.

FUTUREFOCUSED

Koper has a strong environmental compass. A commitment already demonstrated by Sunshadow, the world's first non-toxic PVC compound which is safe for families and workers. By investing heavily in research and development, our factory will continue to create newer, better and safer methods for manufacturing products. It will deliver products that meet the needs of consumers' now, while ensuring quality, durability and contemporary styling. Through the ongoing development of Sunshadow® Sunscreen Blind Fabric, our factory is committed to achieving - The World's BEST Sun Protection for Windows.

QUALITY

Our factory has a strong social conscience and it is from this platform that outstanding quality processes have been developed. Every aspect of manufacturing from top to bottom is quality managed in a state-of-the-art facility that encompasses a formulation plant, laboratory, research and development and a weaving factory. To this end, Sunshadow® Sunscreen has been endorsed by the world's most respected independent testing organizations: Oeko-Tex® which tests for the presence of volatile organic compounds; GREENGAURD® which tests for indoor air quality; and Ecospecifier® which is committed to ecologically aware, 'green' building products. Further, Sunshadow® Sunscreen has outstanding Fire Retardant qualities which have achieved international flame and smoke regulation accreditation. Sunshadow® Sunscreen has also achieved anti-bacterial and anti-fungal certification. The Sunshadow® Sunscreen range of fashion colors is also sound, supported by comprehensive colorfastness testing. Using Blue Scale exposure to "Very Intense" light, testing has delivered a grading of 7 to 8 from a possible best score of 8. As the world becomes more aware of greenhouse gases, carbon footprints and the depletion of natural resources, consumers are making conscious decisions to reduce energy consumption. Sunshadow® Sunscreen by Koper achieves between 20% to 40% in energy savings due to reduced interior temperature in summer and less heat loss in winter, and all without sacrificing the view! Sunshadow® Sunscreen offers see-through qualities and natural light while maintaining day time privacy.

ENVIRONMENTALLY AWARE

Koper is aware of the need for environmental responsibility. Our factory is among the world's leading manufacturers to embrace the environment and human well-being by developing and implementing better and safer products. This commitment is evident in the world's first non-toxic PVC compound which has been developed to coat polyester to form a yarn that is stronger, lighter and less expensive to produce than traditional vinyl coated glass fiber fabrics. But perhaps of greatest importance, Sunshadow® Sunscreen has been officially declared safe when independently tested for Volatile Organic Compounds by Oeko-Tex® Standards 100. In the process of creating safe non-toxic PVC, our factory removed the odors that can reduce interior air quality when Blind Fabrics are installed in homes and workplaces, unlike most competitor's Sunscreen products that pollute interior spaces with strong odors. We call this process of LOE - Low Odor Emission Technology and it has earned GREENGUARD® Indoor Air Quality endorsement. Further, Sunshadow® Sunscreen has been endorsed by Ecospecifier®, an international organization dedicated to sustainable building products and ecologically aware building practices. Ecospecifier® has tested and concluded that Sunshadow® Sunscreen Blind Fabrics are 'green.'

COLOR&RANGE

CB11
White
White

CB12
White
White/Beige

CB13
White
White/Grey

CB18
Charcoal
Bronze/Charcoal

COLOR&RANGE

CB19
Charcoal
Charcoal

CB21
Beige
Beige/Sandstom

CB22
Beige
Beige/Sandstom
+Beige/Saddle Brown

CB24
Beige
Beige/Saddle Brown

THE MAIN THERMAL AND OPTICAL FACTORS

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 780nm (nanometers), called the visible spectrum (total illumination).

Thermal and optical factors

Description Colours	OF 1%							
	Thermal factors						Optical factors	
	Fabric			Fabric + glazing g - value			Tv	Tuv
	Ts	Rs	As	1/8" CL	1/4" C/L	1/4" HA		
CB11 White I White	10	78	12	0.22	0.20	0.19	9	TR
CB12 White I White, Beige	14	66	20	0.28	0.26	0.24	7	TR
CB13 White I White, Grey	14	54	32	0.36	0.32	0.29	5	TR
CB18 Charcoal I Bronze, Charcoal	8	24	68	0.46	0.42	0.32	3	TR
CB19 Charcoal I Charcoal	8	18	74	0.48	0.44	0.34	1	TR
CB21 Beige I Beige, Sandstom	13	68	19	0.46	0.44	0.34	8	0
CB22 Beige I Beige, Sandstom+Beige, Saddle Brown	12	56	32	0.36	0.32	0.28	7	0
CB24 Beige I Beige, Saddle Brown	12	22	66	0.19	0.18	0.17	4	0

APPLICATION

Internal blinds

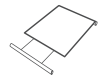

Roller Blinds


Roof light Blinds

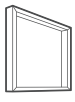

Roman Shades

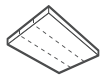

Decorative Panels


Velums


Skylight Blinds

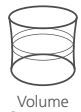
Tensile structures


Frame-Mounted

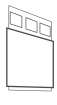

Stretched Ceilings

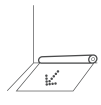

Fixed or Mobile Partitions, Walls and Separations

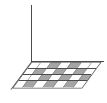

Shaped Structures


Volume Structures

Flooring & Wallcovering


Wallcovering Partitions


Rolls Flooring


Tiles Flooring