vertisol®
contemporary weavers

ECOVISION 3000 FR

VISUAL CONTACT OUTSIDE

COLD-CUT, CRUSH-CUT OR ULTRASONIC

FLAME RETARDANT

REACH COMPLIANT

INDOOR AIR QUALITY CERTIFIED

MANUFACTURED IN THE EU

PVC FREE

TECHNICAL PROPERTIES		
Fabric Characteristic	**Standard**	
Composition	-	100 % Polyester
Weight (g/ m²)	EN 12127	227 ± 5 %
Thickness (mm)		0.34 ± 5 %
Fire reaction	NF P 92 503 NFPA 701	M1 Pass
Light fastness (Xenotest grade)	ISO 105 B02:2002	White 5/ 6 Ivory 6/ 7 Other Colours ≥ 7
Tearing resistance (daN)	EN ISO 13937-3:2001	Warp: 6.0, Weft: 8.0
Breaking resistance (daN)	EN ISO 13934-1:1999	Warp: 162.8, Weft: 151.3
Stretch (%)	EN ISO 13934-1:1999	Warp: 33.3 Weft: 25.7
Openness factor (%)		3 %
Roll size		Width 270 cm. Length 37 m

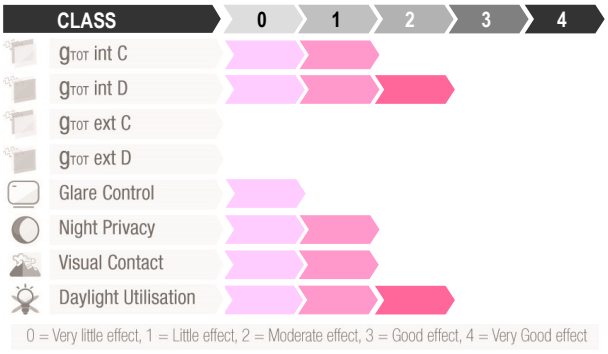
SUN CONTROL PROPERTIES

	THERMAL FACTORS						OPTICAL FACTORS								
	Fabric		Fabric+Glazing												
	% T_s	% R_s	G_{TOT} internal Glazing C		G_{TOT} internal Glazing D		% T_v	% R_v	% $t_{au,n-n}$	% $t_{au,n-diff}$	% t_{uv}	Glare Control	Night Privacy	Visual Contact	Daylight Utilisation
Colour			G_{TOT}	Class	G_{TOT}	Class						Class	Class	Class	Class
Pure White	32	60	0.35	1	0.24	2	30	65	4	26	14	1	2	0	3
Custard	32	57	0.36	1	0.24	2	32	63	5	27	6	0	1	1	2
Shadow	27	54	0.36	1	0.24	2	23	55	8	15	8	0	1	1	2
Ivory	27	53	0.37	1	0.25	2	24	55	3	21	5	1	2	0	2
Mint	26	51	0.37	1	0.25	2	21	51	7	14	8	0	1	2	2
Cinder	24	45	0.39	1	0.25	2	16	39	7	9	8	0	1	2	2
Pebble	14	28	0.43	1	0.26	2	12	28	7	5	8	0	1	2	1
Pearl	11	23	0.45	1	0.27	2	9	22	4	5	5	1	2	1	1
Iron	6	13	0.47	1	0.27	2	5	13	3	2	4	3	2	2	1
Bronze	8	19	0.46	1	0.27	2	4	13	3	1	3	3	2	2	1
Silver Grey	5	6	0.49	1	0.28	2	4	6	3	1	4	3	2	2	1
Ebony	4	4	0.50	0	0.28	2	4	4	4	0	4	3	2	2	1

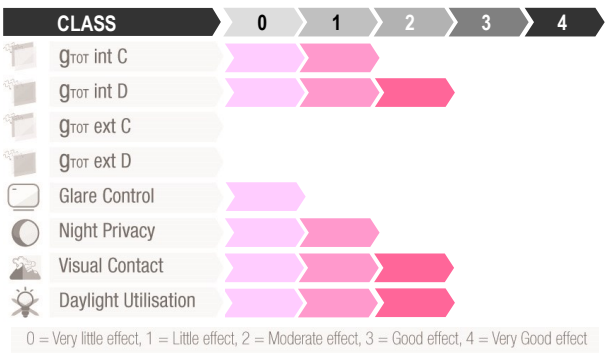
Data measured according to EN 410:2011 and EN 14500:2008
Calculations of g_{TOT} are according to EN 13363-1, with 10% frame area.
Classification of thermal and visual characteristics according to EN 14501:2005
Data of g_{TOT} are given using standard Glazing C and D. though any other combination may be calculated under request

V.E.S.T. diagrams (Vertisol Efficiency Scale Table), based on standard EN 14501 have been developed by Vertisol as a useful tool in the selection of the right shading for each situation:

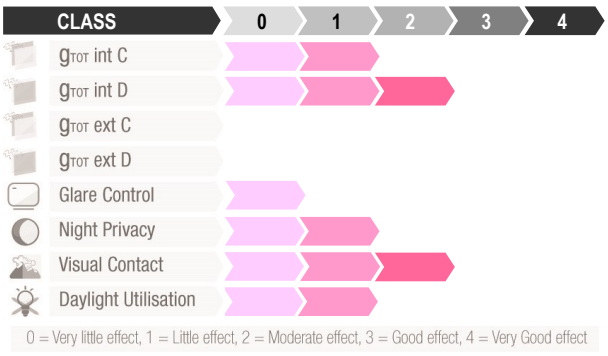
Custard, Shadow



Mint, Cinder



Pebble



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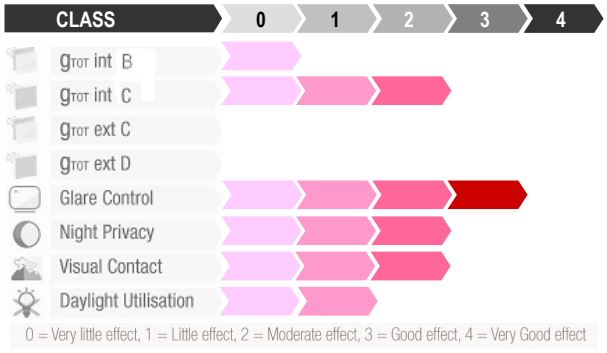
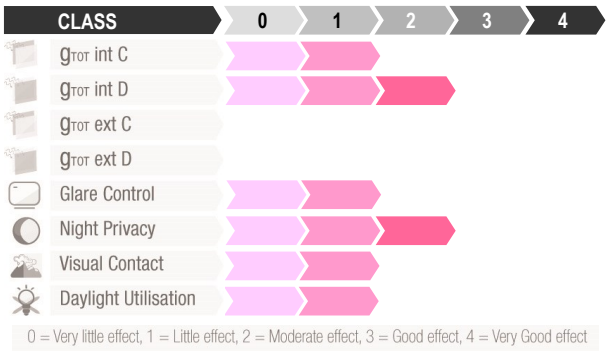
Ebony

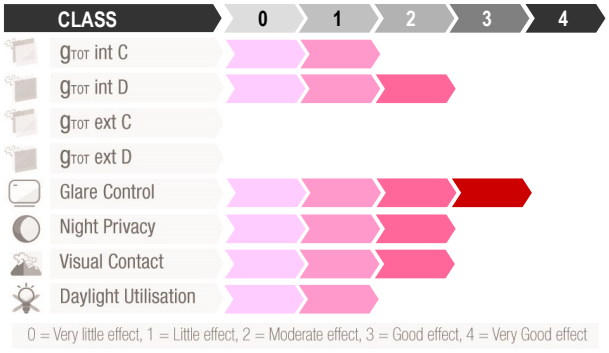


Ivory

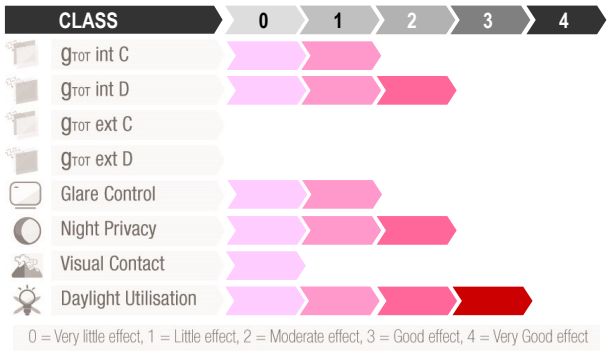
Pearl



Bronze, Silver Grey, Iron



Pure White



All specifications are based on average values and may deviate. The values are given for guidance and are not contractual. Subject to technical modifications

Thermal and visual properties

European Standard **EN 14501** states the properties that shall be taken into account when comparing solar protection devices. It also specifies the corresponding parameters and classifications to quantify its properties of **thermal and visual comfort**. Five performance classes are specified:

Class	Influence on thermal or visual comfort				
	0	1	2	3	4
	very little effect	little effect	moderate effect	good effect	very good effect

%Ts ($\tau_{e,\ n-h}$)	Normal/hemispherical **solar** transmittance. Ratio of the **total** transmitted flux to the directional incident global radiation, from 280 nm to 2500 nm (including UV and IR part of the solar spectrum).
%Rs ($\rho_{c,\ n-h}$)	Normal-hemispherical **solar** reflectance. Ratio of the **total** reflected flux to the directional incident global radiation, from 280 nm to 2500 nm (including UV and IR part of the solar spectrum).
g_{tot}	Total energy transmittance of the shading device combined with the glazing employed. It can be calculated according to EN 13363-1 (simplified method) or EN 13363-2 (ISO 15099, detailed method). Most common standard glazing used un calculation (EN 14501): Glazing Standard C: Double glazing low-e filled with argon 4-16-4. Glazing Standard D: Reflective double low-e glazing filled with argon 4-12-4.
%Tv ($\tau_{v,\ n-h}$)	Normal/hemispherical **light** transmittance. Ratio of the **visual** transmitted flux to the directional incident global radiation, from 380 nm to 780 nm. The total transmitted light is the sum of the direct transmittance through the fabric and the light diffused by it.
%Rv ($\rho_{v,\ n-h}$)	Normal/hemispherical **light** reflectance. Ratio of the **visual** reflected flux to the directional incident global radiation, from 380 nm to 780 nm.
$\tau_{v,\ n-n}$	Normal/normal light transmittance (direct). Its value is frequently close to the openness factor.
$\tau_{v,\ n-dif}$	Normal/diffuse light transmittance.
τ_{UV}	Ultra-Violet transmittance, From 280 to 380 nm.
%OF	Openness coefficient. Ratio between the area of the openings and the total area of the fabric. It can be approximated by $\tau_{v,\ n-n}$

Environmental & health properties

⇒ GREENGUARD GOLD Low VOC emission
⇒ **PVC-free,formaldehyde-free** and lead-free. REACH compliant

Manufacturing properties

⇒ Always store rolls horizontally
⇒ Cold-cut, crush-cut or ultrasonic
⇒ Roller blinds: Welding: use adhesive tape
⇒ Vertical blids: Use adhesive or sewing
⇒ Avoid using components or inappropriate packing of the manufactured blind that may cause marks on the fabric
⇒ Manufacturing direction: Blinds can be manufactured 'drop to length' or railroaded. BUT do not place blinds manufactured in different directions in the same área, as this difference will be spotted
⇒ Manufacture panel blinds only 'drop to length'

Maintenance

⇒ Vacuum clean for regular maintenance
⇒ Do not wash
⇒ Do not rub
⇒ Do not steam
⇒ Do not dry clean
⇒ Wipe gently with a wet sponge

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ISO 9001:2015 and
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