

Nova Twill

NT1 / NT3



Product Certificate

Fire, Smoke Classification	FR (US) - NFPA 701 TM#1 B1(CN) - GB50222	BS (GB) - 5867 Part2 TypeB
Health & Safety	Oeko-tex Standard 100 class IV RoHS Directive (EU)2015/863 AATCC112-2014	Greenguard® Gold EN71 Part 3:1994 GB18586 - 2001
Bacterial & Fungal Resistance	ASTM G21-09 ASTM E 2180-07 Reduce more than 99.9% of bacteria	
Colour fastness to light	Grade 8 ISO105 B02:2014 ≥4.0 AATCC TM 16.3-2014; Option 3; Xenon Arc Lamp	
Warranty	5 Years	



Technical Data

STYLE		NT1	NT3
Composition		25%Polyester 75% PVC	25%Polyester 75% PVC
Openness Factor		≈1%	≈3%
UV Screen		Up to 99%	Up to 97%
Width	inch	98"-118"	98"-118"
	cm	250-300	250-300
Weight	oz/yd ²	13.23±5%	12.64 ± 5%
(ISO 2286-2)	g/m ²	450 ± 5%	430 ± 5%
Thickness	inch	0.026 ± 5%	0.025 ± 5%
(ISO 2286-3)	mm	0.65 ± 5%	0.63 ± 5%
Mechanical	Resistance		
Breaking	Warp (ISO 13934-1)	≥2100 N/5cm ≥1050 N/5cm	≥1700 N/5cm ≥1100 N/5cm
Tear	Warp (ISO 4674)	≥165 N ≥125 N	≥155 N ≥130 N
Packing (Roll Length)		32.8 yards 30 lm	32.8 yards 30 lm

Thermal and Optical Factors

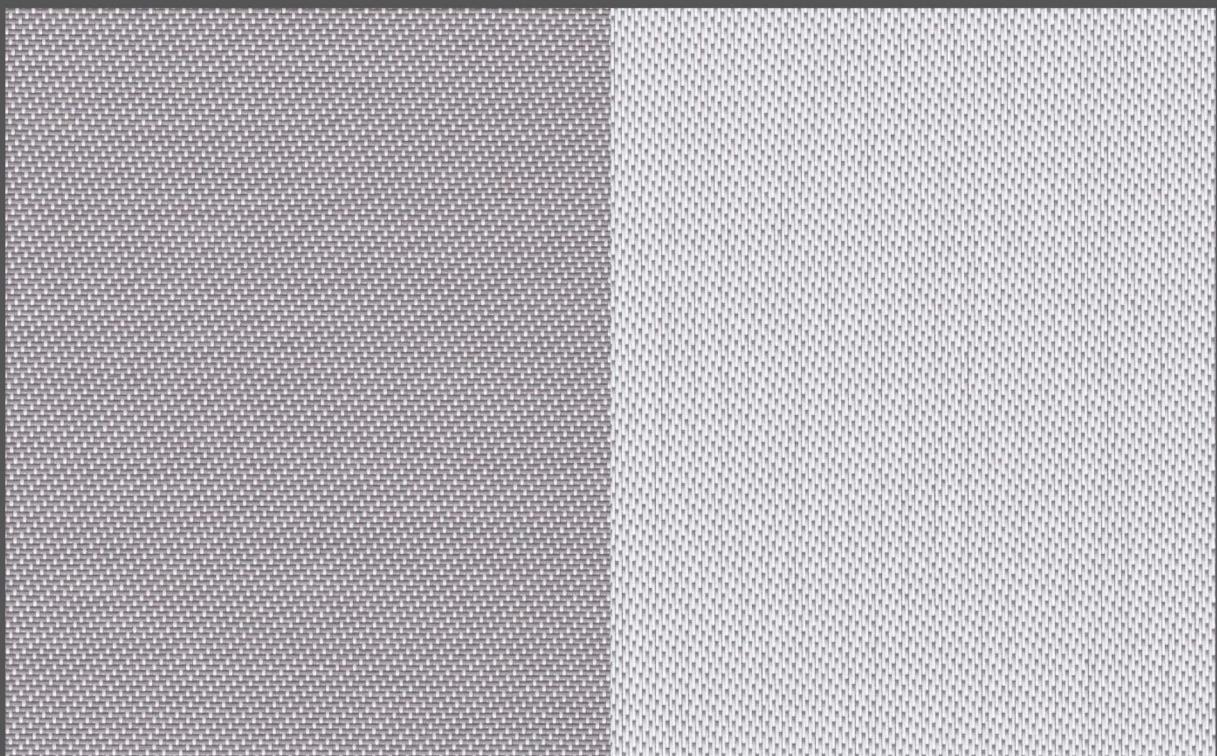
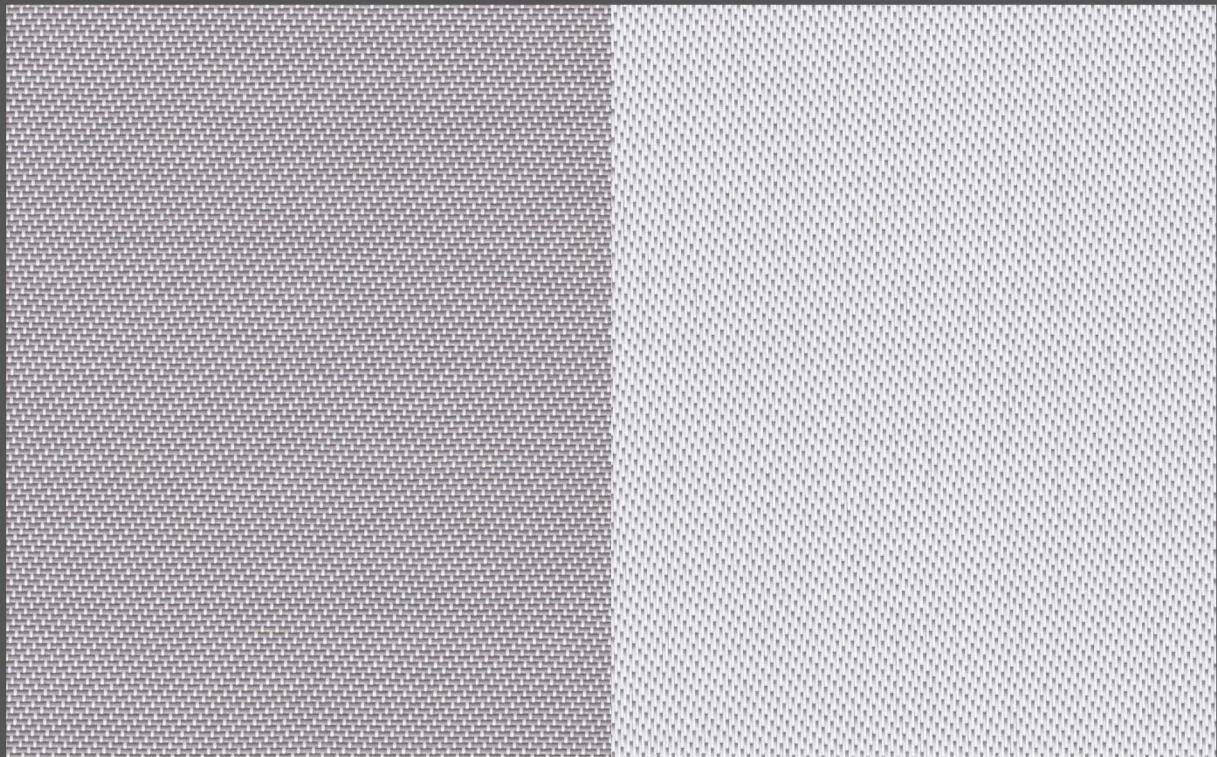
Color	Side	Fabric Properties					Fabric & Glass		Recommended Comfort Classification				
		Thermal			Optical		SHGC % Improvement	SHGC	Visual				
		Ts	Rs	As	Rv	Tv			Daylight Utilization	Glare Control	Night Privacy	Outward Visibility	
Nova Twill 1%													
0101 White*White	A	17	66	17	73	14	55%	0.22	2	2	1	2	0
0102 White*Linen	A	15	63	22	68	11	52%	0.22	2	2	1	2	1
	B	15	57	28	60	11	46%	0.24	2	2	1	2	1
0103 White*Pearl	A	15	57	28	60	11	46%	0.24	2	1	3	2	2
	B	14	60	26	66	11	51%	0.22	2	1	2	2	1
0104 White*Black	A	7	47	46	47	6	42%	0.27	2	1	2	2	1
	B	9	22	69	32	8	30%	0.29	1	1	3	3	1
0105 White*Grey	A	11	54	35	60	7	47%	0.23	1	1	3	3	1
	B	11	36	53	38	7	33%	0.29	1	1	3	3	1
0107 White*Sand	A	14	60	26	65	10	50%	0.22	2	1	2	2	1
	B	14	49	37	50	10	40%	0.26	2	2	1	2	1
0403 Black*Pearl	A	0	6	94	6	0	15%	0.35	2	1	2	2	2
	B	0	16	84	18	0	21%	0.32	1	1	3	3	1
0404 Black*Black	A	0	3	97	3	0	13%	0.36	1	1	3	3	1
0406 Black*Brown	A	0	4	96	4	0	14%	0.36	1	1	3	3	1
	B	0	6	94	6	0	15%	0.35	1	1	3	3	1
Nova Twill 3%													
0101 White*White	A	19	64	17	71	16	53%	0.23	2	2	1	2	0
0102 White*Linen	A	19	63	18	67	13	53%	0.23	2	2	1	2	1
	B	17	62	21	59	13	45%	0.25	2	2	1	2	1
0103 White*Pearl	A	17	56	27	64	12	49%	0.24	2	1	2	2	2
	B	15	58	27	53	12	41%	0.27	2	1	1	2	1
0104 White*Black	A	8	43	49	34	7	39%	0.27	2	1	2	2	2
	B	9	20	71	8	8	27%	0.29	2	1	1	2	1
0105 White*Grey	A	15	48	37	57	7	45%	0.24	2	1	1	2	1
	B	11	52	37	36	7	31%	0.30	2	2	1	2	1
0107 White*Sand	A	11	34	55	62	11	48%	0.24	2	2	1	2	1
	B	15	58	27	48	11	38%	0.28	1	1	2	2	1
0403 Black*Pearl	A	15	47	38	7	2	15%	0.36	1	1	2	2	1
	B	2	6	92	20	2	22%	0.32	1	1	2	2	1
0404 Black*Black	A	2	17	81	3	2	13%	0.37	1	1	2	2	1
0406 Black*Brown	A	2	4	94	4	2	14%	0.36	1	1	2	2	1
	B	2	7	91	7	2	15%	0.36	1	1	2	2	1

Ts (Solar transmittance): Proportion of solar energy transmitted through the fabric. Rs (Solar reflectance): Proportion of solar radiation reflected by the fabric. As (Solar absorptance): Proportion of solar radiation absorbed by the fabric. Tv (Visible light transmittance): Total percentage of light radiation through the fabric over a wavelength of 380 to 780 nm. Rv (visible light reflectance): Total percentage of light radiation reflected by the fabric over a wavelength of 380 to 780 nm. SHGC (Total solar factor): Solar energy which actually penetrates into a room through the blind and glazing. A low value means good thermal performance.

Comfort Classification According to EN14501 : 0. Very little effect 1. Little effect 2. Moderate effec 3. Good effect 4. Very good effec

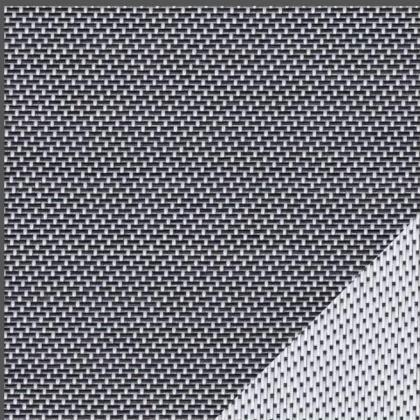
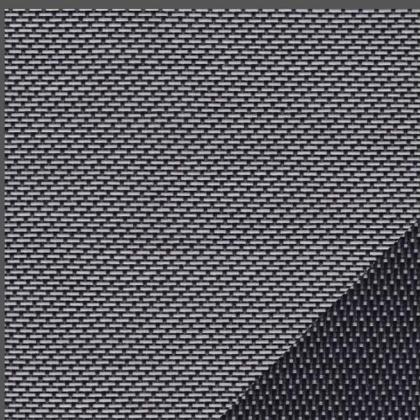
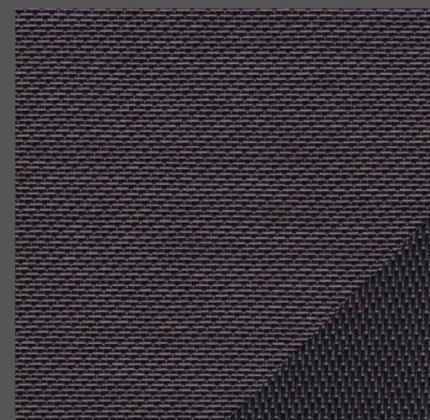
Openness Factor

0105 White * Grey



Openness Factor may be slightly different from the actual ones

Colours

NT 3%0101 White * White0102 White * Linen0103 White * Pearl0104 White * Black0105 White * Grey0107 White * Sand0403 Black * Pearl0404 Black * Black0406 Black * Brown



Turnils-Mermet Asia Sdn. Bhd.

Add: Lot 493, Persiaran Kuala Selangor,

Section 26, 40400 Shah Alam,

Selangor Darul Ehsan,

Malaysia

Tel: + 603 5191 2898

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Basket

B1 / B3 / B5 / B10



Product Certificate

Fire, Smoke Classification	FR (US) - NFPA 701 TM#1 B1(CN) - GB50222	BS (GB) - 5867 Part2 TypeB
Health & Safety	Oeko-tex Standard 100 class IV RoHS Directive (EU)2015/863 AATCC112-2014	Greenguard® Gold EN71 Part 3:1994 GB18586 - 2001
Bacterial & Fungal Resistance	ASTM G21-09 ASTM E 2180-07 Reduce more than 99.9% of bacteria	
Colour fastness to light	Grade 8 ISO105 B02:2014 ≥4.0 AATCC TM 16.3-2014; Option 3; Xenon Arc Lamp	
Warranty	5 Years	



Technical Data

STYLE	B1	B3	B5	B10
Composition	22%Polyester 78% PVC	22%Polyester 78% PVC	22%Polyester 78% PVC	22%Polyester 78% PVC
Openness Factor	≈1%	≈3%	≈5%	≈10%
UV Screen	Up to 99%	Up to 97%	Up to 94%	Up to 89%
Width	inch cm	98"-118" 250-300	98"-118" 250-300	98"-118" 250-300
Weight (ISO 2286-2)	oz/yd ² g/m ²	14.55±5% 495 ± 5%	14.26 ± 5% 485 ± 5%	13.52 ± 5% 460 ± 5%
Thickness (ISO 2286-3)	inch mm	0.028 ± 5% 0.72 ± 5%	0.027 ± 5% 0.70 ± 5%	0.024 ± 5% 0.64 ± 5%
Mechanical	Resistance			
Breaking (ISO 13934-1)	Warp Weft	≥1900 N/5cm ≥1100 N/5cm	≥1600 N/5cm ≥1500 N/5cm	≥1550 N/5cm ≥1300 N/5cm
Tear (ISO 4674)	Warp Weft	≥110 N ≥ 60 N	≥130 N ≥ 90 N	≥100 N ≥ 80 N
Packing (Roll Length)		32.8 yards 30 lm	32.8 yards 30 lm	32.8 yards 30 lm

Thermal and Optical Factors

Color	Fabric Properties					Fabric & Glass		Recommended Comfort Classification				
	Thermal			Optical		SHGC % Improvement	SHGC	Visual				
	Ts	Rs	As	Rv	Tv			Daylight Utilization	Glare Control	Night Privacy	Outward Visibility	
Basket 1%												
0101 White*White	15	72	13	74	13	56%	0.21	2	2	1	2	1
0102 White*Linen	17	65	18	68	13	53%	0.23	2	2	1	2	1
0103 White*Pearl	17	60	23	62	14	47%	0.24	2	2	1	2	1
0104 White*Black	3	25	72	35	3	40%	0.28	2	1	2	2	1
0105 White*Grey	8	45	47	50	5	40%	0.25	2	1	2	2	1
0107 White*Sand	12	55	33	59	8	46%	0.23	2	1	2	2	1
0403 Black*Pearl	0	10	89	12	0	18%	0.34	2	0	3	3	1
0404 Black*Black	0	3	97	3	0	13%	0.36	1	0	3	3	1
0406 Black*Brown	1	5	94	5	1	14%	0.35	1	0	3	3	1
Basket 3%												
0101 White*White	17	71	12	74	24	46%	0.26	2	2	1	2	1
0102 White*Linen	20	66	14	74	16	48%	0.25	2	2	1	2	1
0103 White*Pearl	15	58	27	66	12	46%	0.26	2	2	1	2	1
0104 White*Black	8	26	66	40	7	40%	0.29	2	1	1	2	1
0105 White*Grey	9	49	42	55	7	44%	0.27	2	1	1	2	1
0107 White*Sand	18	59	23	62	13	46%	0.26	2	1	1	2	1
0403 Black*Pearl	6	14	80	15	6	38%	0.30	2	1	3	2	2
0404 Black*Black	5	3	92	3	5	35%	0.31	1	1	3	2	2
0406 Black*Brown	6	8	86	7	5	38%	0.30	1	1	3	2	2
Basket 5%												
0101 White*White	19	72	9	80	15	48%	0.25	2	2	0	1	1
0102 White*Linen	22	63	15	71	18	48%	0.25	2	2	0	1	1
0103 White*Pearl	18	57	25	65	15	46%	0.26	2	2	0	1	2
0104 White*Black	12	27	61	45	11	40%	0.29	2	1	0	1	2
0105 White*Grey	12	44	44	51	10	44%	0.27	2	1	0	1	2
0107 White*Sand	20	59	21	63	16	46%	0.26	2	1	0	1	2
0403 Black*Pearl	10	14	76	17	10	38%	0.30	1	1	1	1	3
0404 Black*Black	7	3	90	3	7	35%	0.31	1	1	1	1	3
0406 Black*Brown	8	5	87	6	8	35%	0.31	1	1	1	1	3
Basket 10%												
0101 White*White	23	66	11	75	19	48%	0.25	2	2	0	0	2
0102 White*Linen	25	60	15	68	21	46%	0.26	2	2	0	1	2
0103 White*Pearl	24	52	24	60	21	46%	0.26	2	2	0	1	2
0104 White*Black	19	23	58	47	18	40%	0.29	2	2	0	1	3
0105 White*Grey	18	43	39	50	15	44%	0.27	2	2	0	1	3
0107 White*Sand	26	55	19	60	21	46%	0.26	2	2	0	1	3
0403 Black*Pearl	16	14	70	17	15	38%	0.30	1	1	1	1	3
0404 Black*Black	13	3	84	3	13	35%	0.31	1	1	1	1	3
0406 Black*Brown	14	7	79	6	13	38%	0.30	1	1	1	1	3

Ts (Solar transmittance): Proportion of solar energy transmitted through the fabric. Rs (Solar reflectance): Proportion of solar radiation reflected by the fabric. As (Solar absorptance): Proportion of solar radiation absorbed by the fabric.

Tv (Visible light transmittance): Total percentage of light radiation through the fabric over a wavelength of 380 to 780 nm. Rv (visible light reflectance): Total percentage of light radiation reflected by the fabric over a wavelength of 380 to 780 nm. SHGC (Total solar factor): Solar energy which actually penetrates into a room through the blind and glazing. A low value means good thermal performance.

Comfort Classification According to EN14501 : 0. Very little effect

1. Little effect

2. Moderate effect

3. Good effect

4. Very good effect

Advantage

B 1%-3%

Tight Basket Weave That Combine Visual Comfort With Transparency

- Tight Basket Weave For EXCELLENT CONTROL OF GLARE. Up To 100% Of Light Rays Filtered($T_v \approx 0\%$)
- Benefit To Internal Thermal Comfort: Up To 79% Of Solar Energy($SHGC=0.21$)

B 5%-10%

Open Basket Weave Design For Optimum Transparency And Control Of Natural Light

- **MAXIMUM TRANSPARENCY:** Excellent Vision To The Outside With Optimal Control Of Incoming Natural Light.
- Helps To Improve The Energy Efficiency Of Buildings
- Good Glare Control: Up To 93% Of Light Rays ($T_v = 7\%$)

- 9 COLORS Available In 2 Widths: 250cm And 300cm
- COORDINATED RANGE WITH A VARIETY OF OPENNESS FACTORS (B 1%, B 3%, B 5% And B 10%) To Optimize Solar Protection In All Applications, Maintaining A Consistent Design Aesthetic
- Excellent MECHANICAL RESISTANCE And Dimensional Stability For Large Roller Blinds
- Health & Safety: Conforms To Standard Requirements For Buildings Open To The Public
- Excellent DIGITAL PRINTING MEDIUM For Custom Designs

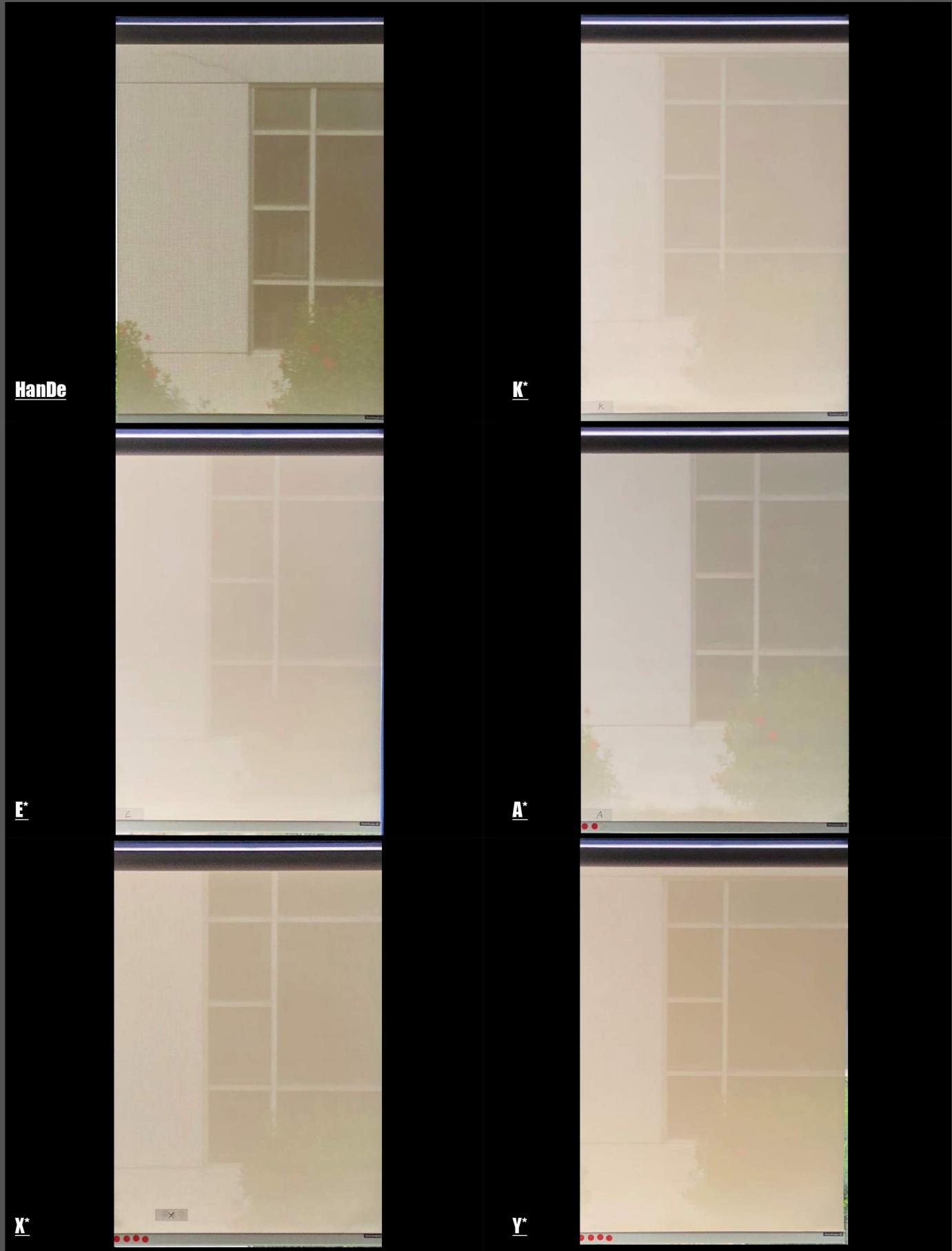
Solar Fenestration Properties Comparison

Product	Range	Style	Thermal Factors			Optical Factors	Basket 5% 2X2 White*White
			Rs (%)	As (%)	Ts (%)		
HanDe	B5	Basket 5% 2X2 White*White	72	9	19	15	0.32
	NB5*		67	7	26	23	0.33
A*	3000 N		66	14	20	12	0.32
B*	2000		67	11	22	19	0.34
P*	2000		67	13	20	16	0.30
M*	7505		71	9	20	17	0.28

Non binding document

Transparency Comparison

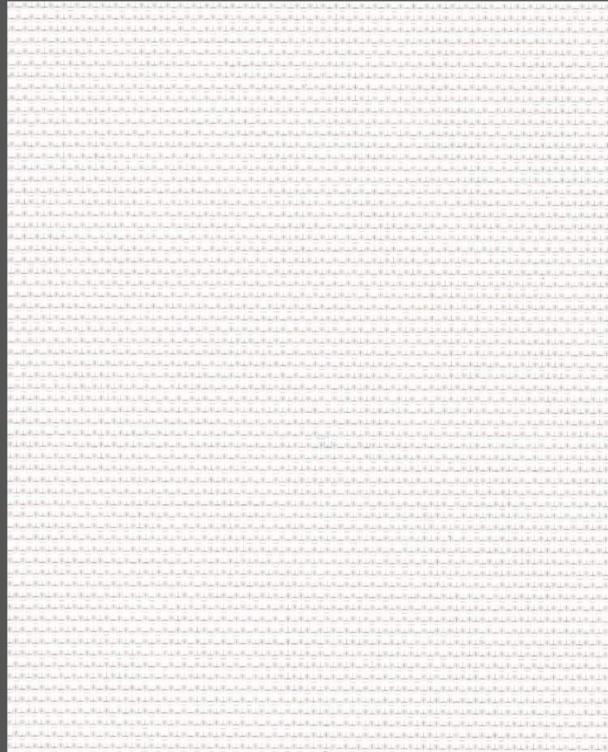
Basket 5% 2X2 White*White



For reference only

Openness Factor

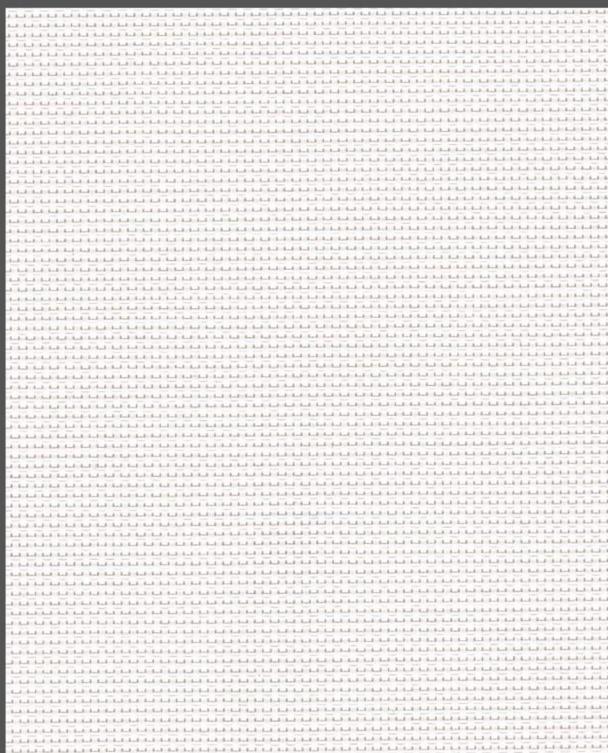
0101 White * White



B 1%



B 3%

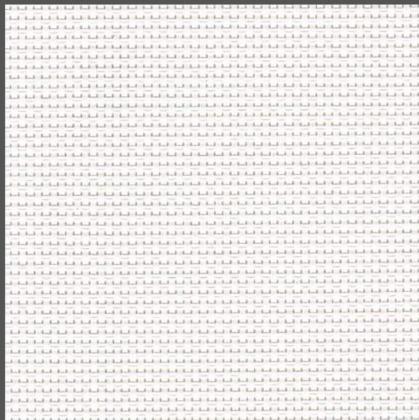


B 5%

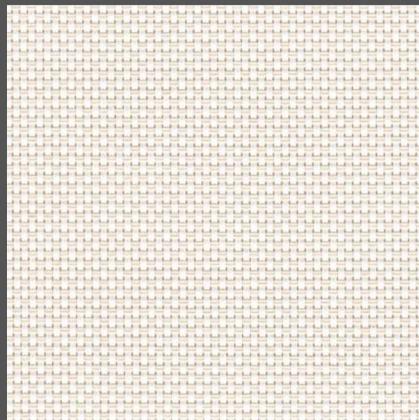


B 10%

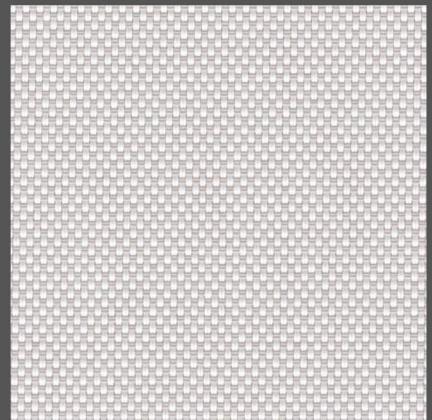
Colours

B 5%

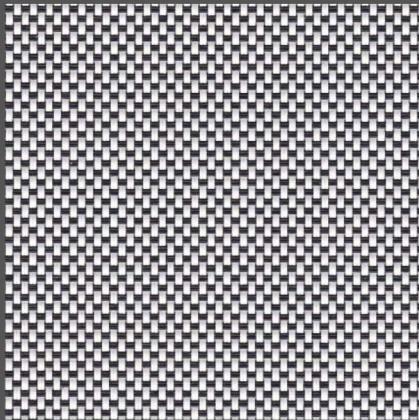
0101 White * White



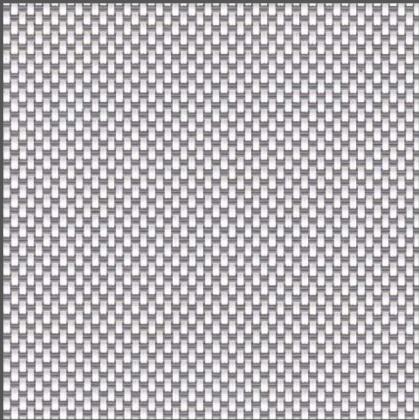
0102 White * Linen



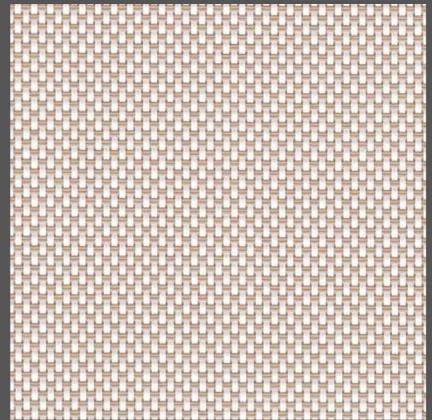
0103 White * Pearl



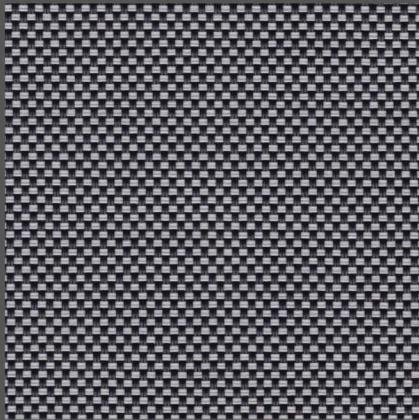
0104 White * Black



0105 White * Grey



0107 White * Sand



0403 Black * Pearl



0404 Black * Black



0406 Black * Brown



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Section 26, 40400 Shah Alam,

Selangor Darul Ehsan,

Malaysia

Tel: + 603 5191 2898

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MARIO

MA01 / MA03 / MA05 / MA10



TURNILS®

Product Certificate

Fire, Smoke Classification	FR (US) - NFPA 701 TM#1 B2(CN) - GB50222
Health & Safety	Oeko-tex Standard 100 class IV RoHS Directive (EU)2015/863 AATCC112-2014
Colour fastness to light	Grade 6 ISO105 B02:2014 ≥4.0 AATCC TM 16.3-2014; Option 3; Xenon Arc Lamp
Warranty	5 Years

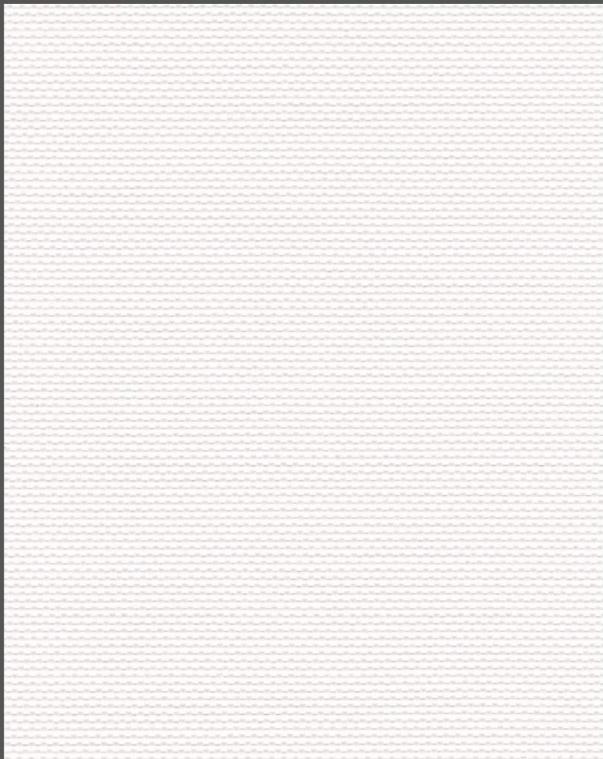


Technical Data

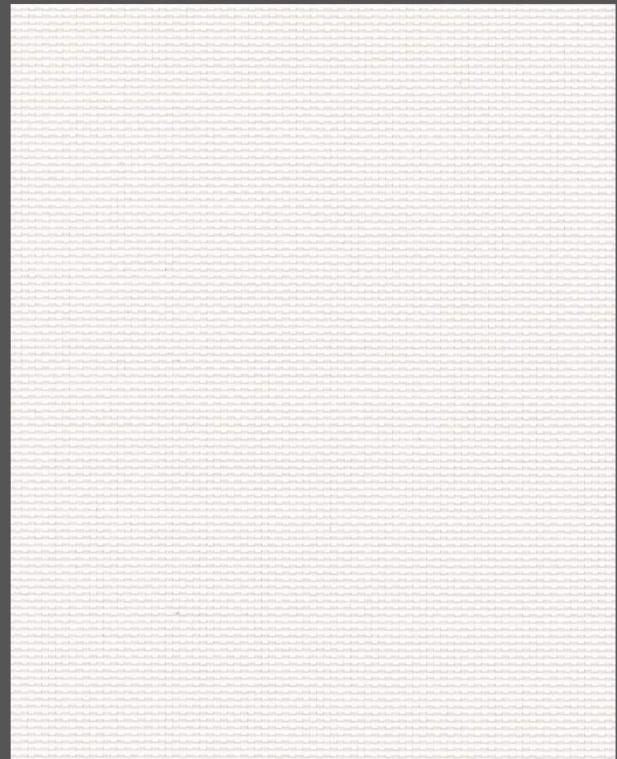
STYLE	MA01	MA03	MA05	MA10
Composition	24%Polyester 76% PVC	24%Polyester 76% PVC	24%Polyester 76% PVC	24%Polyester 76% PVC
Openness Factor	≈0.5%	≈3%	≈5%	≈10%
UV Screen	Up to 99%	Up to 97%	Up to 95%	Up to 90%
Width	inch cm	98"-118" 250-300	98"-118" 250-300	98"-118" 250-300
Weight (ISO 2286-2)	oz/yd ² g/m ²	15.92 ± 5% 540 ± 5%	14.30 ± 5% 485 ± 5%	13.56±5% 460 ± 5%
Thickness (ISO 2286-3)	inch mm	0.027 ± 5% 0.69 ± 5%	0.022 ± 5% 0.56 ± 5%	0.022 ± 5% 0.56 ± 5%
Mechanical	Resistance			
Breaking (ISO 13934-1)	Warp Weft	≥2000 N/5cm ≥1300 N/5cm	≥1600 N/5cm ≥1800 N/5cm	≥1600 N/5cm ≥1300 N/5cm
Tear (ISO 4674)	Warp Weft	≥120 N ≥ 80 N	≥120 N ≥120 N	≥120 N ≥120 N
Packing (Roll Length)		32.8 yards 30 lm	32.8 yards 30 lm	32.8 yards 30 lm

Openness Factor

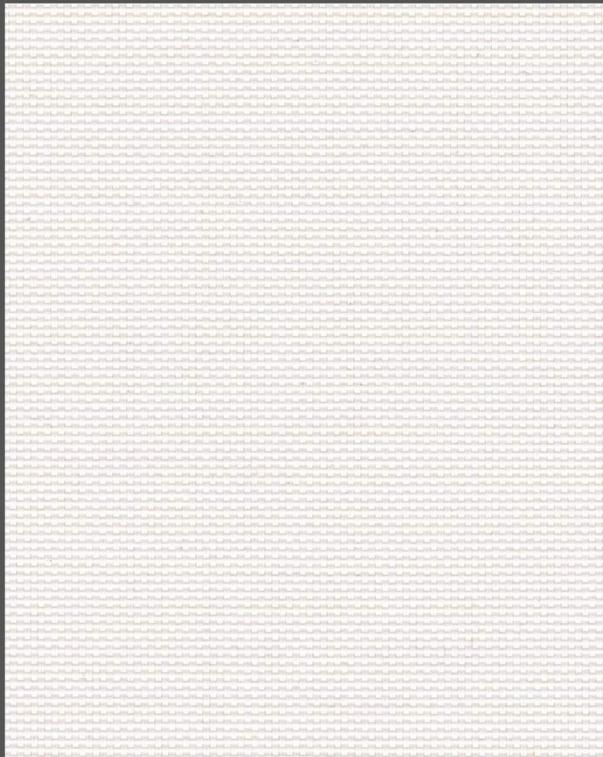
White * White



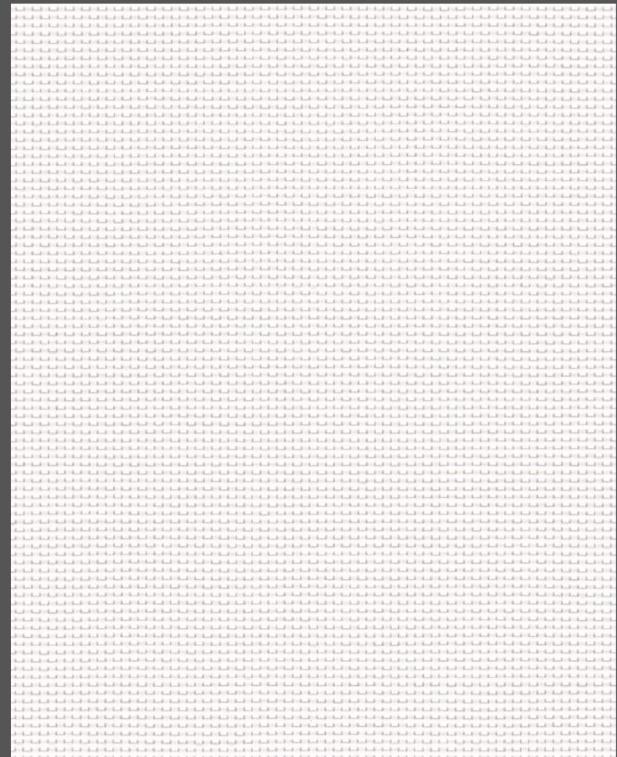
MA 1%



MA 3%



MA 5%

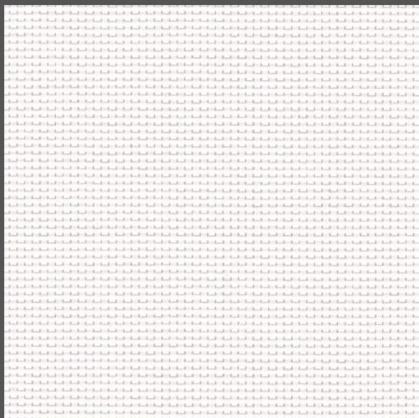


MA 10%

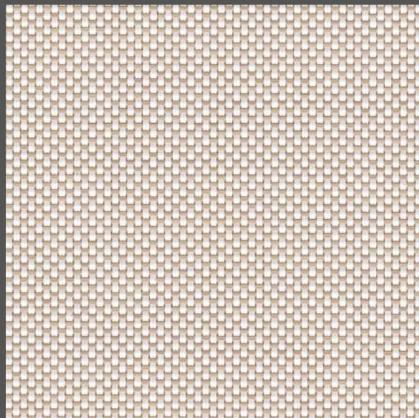
* Openness Factor may be slightly different from the actual ones

Colours

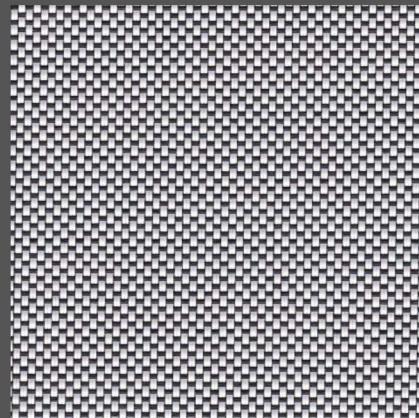
Mario 5%



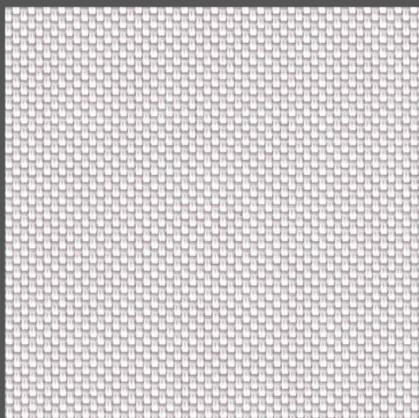
M01 White * White



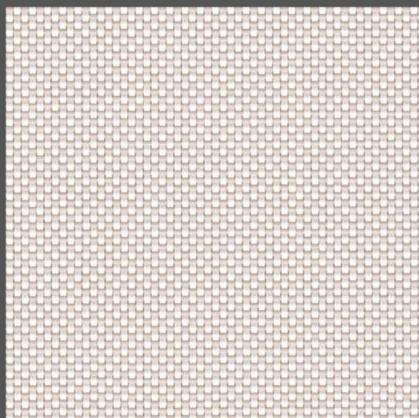
M02 White * Sand



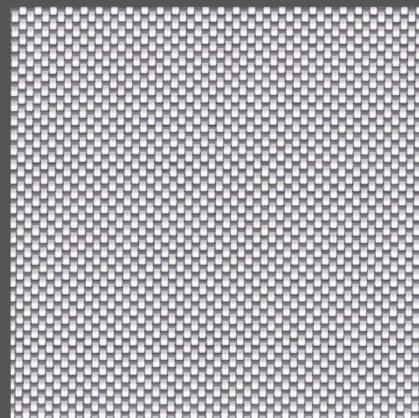
M10 White * Black



M15 White * Pearl



M16 White * Linen



M17 White * Dark Grey



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