

SLIT CURTAIN



Slit curtain

For backyard of foodstuff facilities or factories



P3~6

Hyper accordion sheet (indoor use only)

For indoor partitions



P7~10

Hyper curtain (indoor use only)

Making much of cost performance with the thinner curtain



P11~12

Hyper curtain with reinforcement

Reinforce air tightness with double sheets



P13

Slit curtain

Minimize external intrusions.



Antistatic & Insectproof, Orange

● Users orientation

The Slit curtain is PVC vinyl curtain in slit type sheet. This core property enables smooth and unobstructed traffic, and is possible to create a hygienic environment with this sheet partition.

● Energy efficient

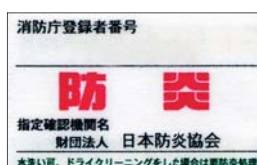
The Slit curtain can provide a quick inbound/outbound traffic environment, which indirectly increase the air-conditioning effect and maintain a constant indoor temperature.

● Brightly lit with Clear sheet

Different types of sheet with different specifications that cater to various needs. The sheet in high clearness makes an indoor workplace bright with the excellent lighting effect.

● Flame retardant effect

The flame retardant sheet of Slit Curtain has passed the test by the authorities Japan Fire Retardant Association and got the following numbers:
Test number : AO 010246~8
Registered number : E-13-40520
The sheet can easily be used for a flame retardant requirement such as a partition in factory requiring flame retardant material. Items with * marked have the effect.



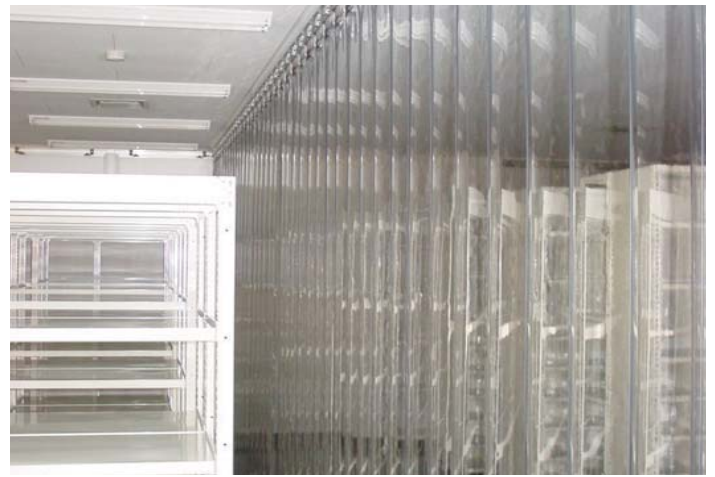
Registry number in the Fire department

FLAME RETARDANT
Authorized by Japan Fire Retardant Association

Water washing allowed / Need re-treatment of the flame-retardant in case of dry cleaning.



Antistatic, Clear



Super Cold proof

● Variety of sheet

Flat sheet :

Antistatic, Clear			Antistatic & Insect-proof orange			Super cold-proof			Antistatic & flame retardant, Clear*			Antistatic & flame retardant, Insect-proof orange*			Smoke		
Usable at different places with its high transparency and flexibility. Suitable for heavy traffic premises such as supermarkets or factories.			To prevent insect intrusions, especially at 24 hours food processing plants.			For refrigerator or freezer. Suitable to use as an intermediate door in frozen food chambers of manufacturing factory or cold room partitions in warehouse.			Suitable for openings in factory or warehouse where flammable articles are stored or serve as fire prevention measures.			An insect-repelling orange sheet added flame-proof performance.			Suitable as sunblind. To provide shade and fade prevention measure, against direct sunlight.		
size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)
2×100	24	0.27	2×100	24	0.27	2×100	24	0.27	—	—	—	—	—	—	—	—	—
2×200	12, 30	0.53	2×200	12, 30	0.53	2×200	12, 30	0.53	2×200	12, 30	0.53	2×200	30	0.53	—	—	—
2×300	12, 30	0.8	2×300	12, 30	0.8	2×300	12, 30	0.8	2×300	12, 30	0.8	—	—	—	—	—	—
3×200	30	0.8	3×200	30	0.8	3×200	30	0.8	—	—	—	—	—	—	—	—	—
3×300	12, 30	1.2	3×300	12, 30	1.2	3×300	12, 30	1.2	3×300	12, 30	1.2	—	—	—	3×300	30	1.2
4×300	30	1.6	4×300	30	1.6	—	—	—	—	—	—	—	—	—	—	—	—

Sheet with rib :

As both sides of the sheets are with ribs, it is hard to be damaged. It is the improved type having the characteristic stickiness of vinyl chloride.

Antistatic, Clear			Antistatic & Insect-proof orange			Super Cold-proof			Antistatic&flame retardant, Clear*			Antistatic & flame retardant, Insect-proof orange*			Insect proof, OPTRON		
Antistatic clear sheet with rib.			Antistatic & Insect-proof orange sheet with rib.			Super coldproof sheet with rib, suitable for refrigerator or freezer.			Antistatic & flame-retardant clear sheet with rib.			Antistatic, flame-retardant & Insect-proof orange sheet with rib.			Used as deterrent, against flying insect intrusions, based on their behavior.		
size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)	size (mm) thick x width	length (m)	weight (kg/m)
2×200	12, 30	0.53	2×200	12, 30	0.53	2×200	30	0.53	2×200	30	0.53	2×200	30	0.53	2×200	30	0.53
2×300	12, 30	0.8	2×300	12, 30	0.8	2×300	30	0.8	—	—	—	2×300	30	0.8	2×300	30	0.8
3×200	30	0.8	3×200	30	0.8	3×200	30	0.8	—	—	—	—	—	—	—	—	—
3×300	12, 30	1.2	3×300	12, 30	1.2	3×300	30	1.2	—	—	—	—	—	—	3×300	30	1.2

For partition (wide sheet)

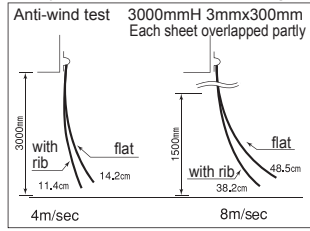
Antistatic, Clear		Antistatic & Insect-proof		Antistatic & flame retardant*	
size	length	size	length	size	length
1mm×91.5 · 183cm 2mm×91.5cm	12m	1mm×91.5 · 183cm 2mm×91.5cm	12m	1mm×91.5cm 2mm×91.5cm	12m

※3mm 91.5cm 12m : special production on request

※Please cut the sheet 2~3% longer as the soft PVC material shrinks when cut.
 ※*The standard of sheet width is set up with the tolerance of +0mm~-5mm. So, in case of width 200mm, the actual size is 195~200mm and, for width 300mm, the actual size is 295~300mm.

● Anti-wind effect

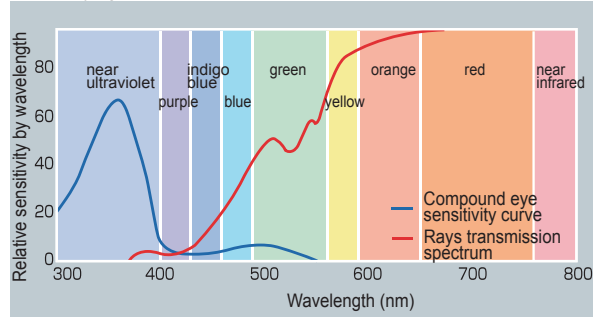
To prevent rain or wind come into indoor by strengthening air tightness with the Slit Curtain's own weight by its thickness and with the overlap of each sheet. Even when wind is rather strong, the Slit Curtain can easily be used without its turning up.



Wind(m/sec)	flat (cm)	with rib(cm)
4	14.2	11.4
8	48.5	38.2

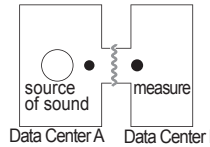
● Anti-insect effect

Insect proof orange sheet cuts the area of wavelength 350nm where insects are used to react most. Partition with the Slit Curtain prevents insects flying into inside.



● Sound insulation effect

The Slit Curtain puts forth its excellent effect for working sound insulation and much contributes to prevention of pollution. The following shows results of noise reduction after the Slit Curtain is installed at Data Center.



★ The noise level drops to 16 db (average) by installation of the Slit Curtain. Especially, it gains larger effects at the higher hertz area.

- Sheet: 3mm x 300mm
- Overlapped partly
- Clear opening: 2.0m(W) x 2.5m(H)

Frequency C	125Hz	1000Hz	2000Hz	3000Hz
Data center A	60db	72db	76db	80db
Data center B	49db	59db	61db	63db
Difference	11db	13db	14db	17db

● Air-conditioning effect

Air-conditioning effect is increased by a partition placed with the Slit Curtain inside of room. It can gain the same effect at controlling air-condition inside of room and freezer or refrigerator.

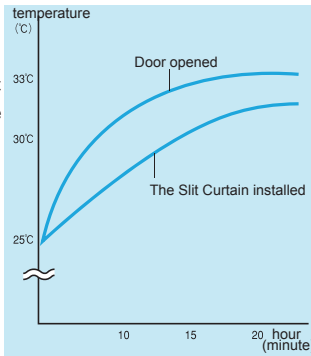
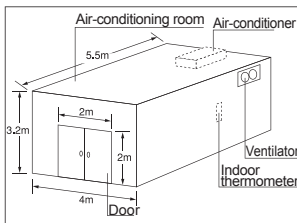
Cooling effect test

■ Conditions of the test ■ Way of the test ■ Result

Air-conditioner	2.2kw
Ventilator	70w
Average outside temperature	33°C
Indoor temperature	25°C
Flat sheet	thickness 2mm
	width 200mm overlapped partly

Stop the air-conditioner at indoor temperature 25°C. Measure a change of the indoor temperature when door opens without the Slit Curtain and when it opens with the Slit Curtain installed, under the inhale drive of ventilator.

■ Object



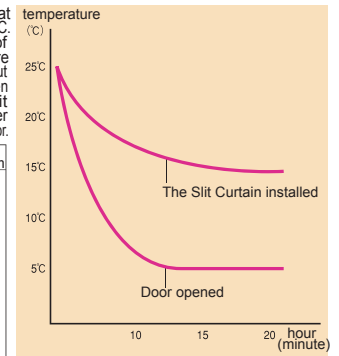
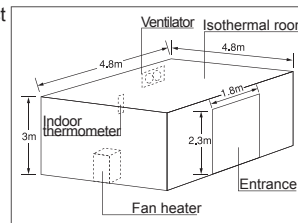
Heating effect test

■ Conditions of the test ■ Way of the test ■ Result

Fan heater	5kw
Ventilator	70w
Average outside temperature	5°C
Indoor temperature	25°C
Flat sheet	thickness 2mm
	width 200mm overlapped partly

Stop the fan heater at indoor temperature 25°C. Measure a change of the indoor temperature when door opens without the Slit Curtain and when it opens with the Slit Curtain installed, under the inhale drive of ventilator.

■ Object

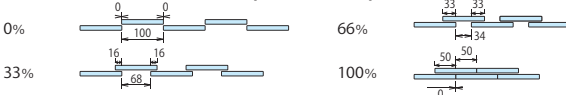


● Overlap rate of each sheet (*Numbers are approximate values for reference)

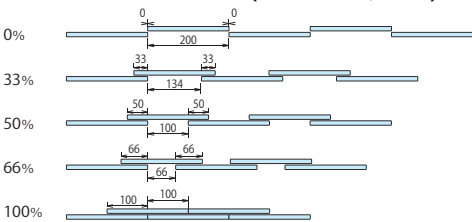
For MC series and ZS series

■ Sheet fittings: Fixing type, Sliding type

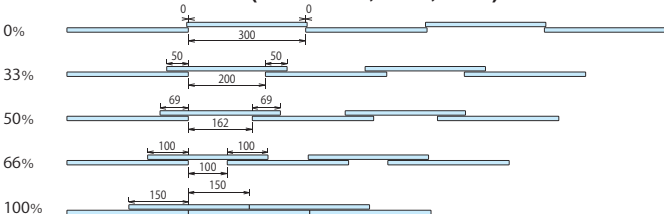
Width of sheet 100mm (thick. 2mm)



Width of sheet 200mm (thick. 2mm, 3mm)



Width of sheet 300mm (thick. 2mm, 3mm, 4mm)

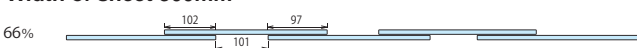


■ Sheet fittings: Accordion type

Width of sheet 100mm Width of sheet 200mm



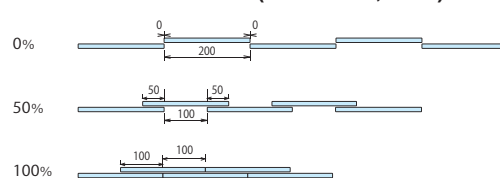
Width of sheet 300mm



For SW series

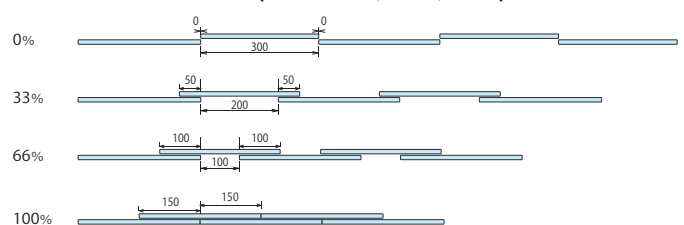
■ Sheet fittings: Fixing type, Sliding type (For 50% overlap rate only)

Width of sheet 200mm (thick. 2mm, 3mm)



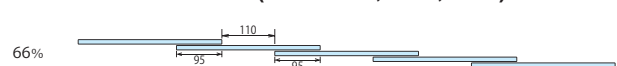
■ Sheet fittings: Fixing type, Sliding type (For 33% & 66% overlap rate only)

Width of sheet 300mm (thick. 2mm, 3mm, 4mm)



■ Sheet fittings: Accordion type

Width of sheet 300mm (thick. 2mm, 3mm, 4mm)



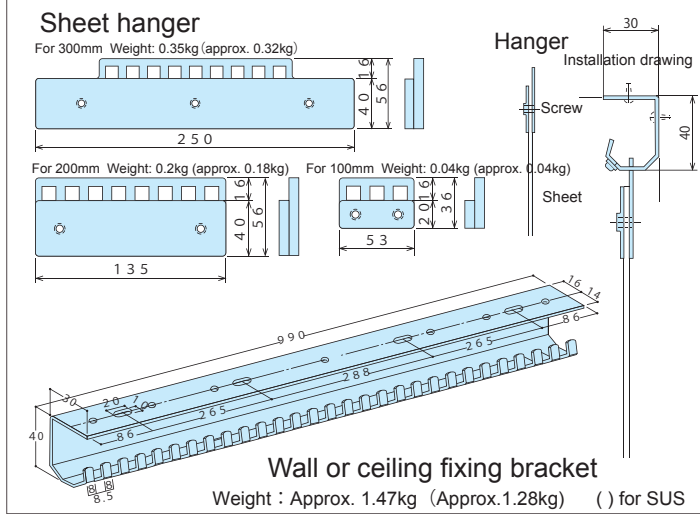
● Type of sheet fittings

Different sheet fittings can be chosen according to site requirements.

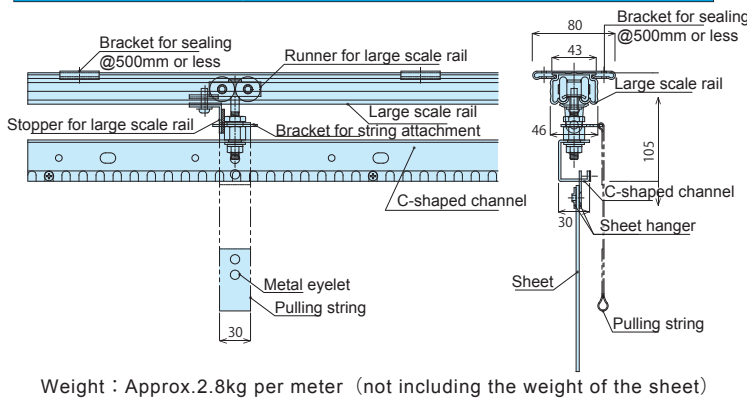
MC series · ZS series

Common structure for installation, with variety of overlap rates and it can use different fittings according to opening dimensions.

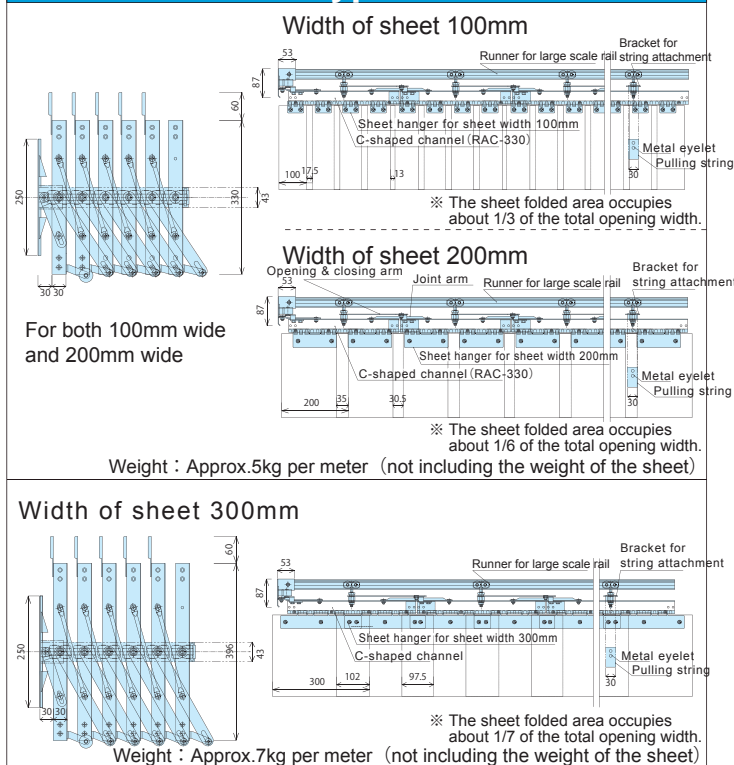
A-MC Fixing type



B-ZS Sliding type



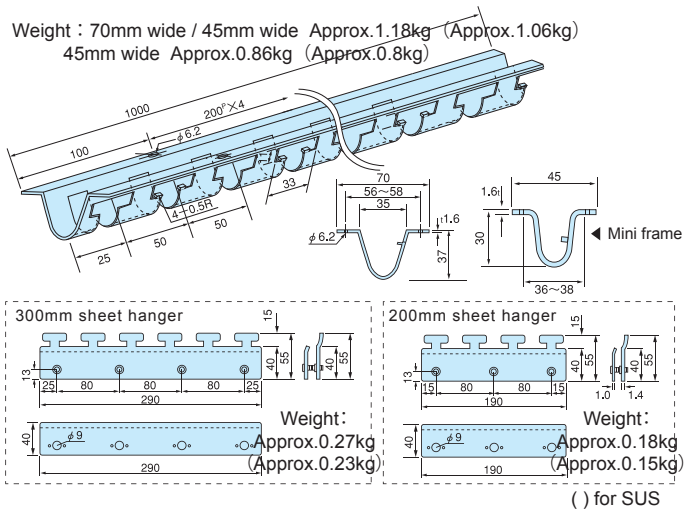
C-ZS Accordion type



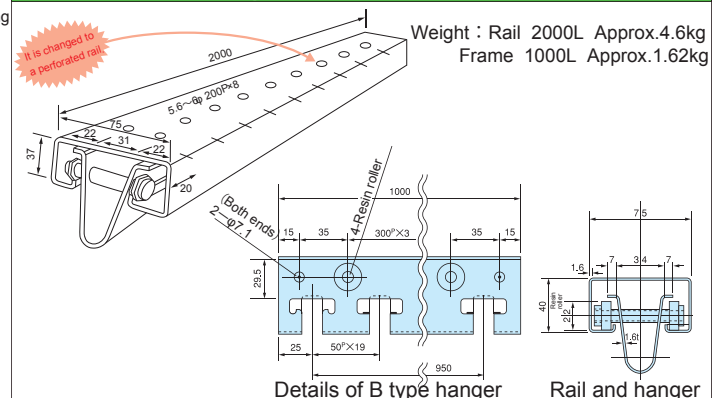
SW series

With the sheet hanger and bracket in strong durability. Suitable for such sites where there are many traffic of carts as plants or warehouses.

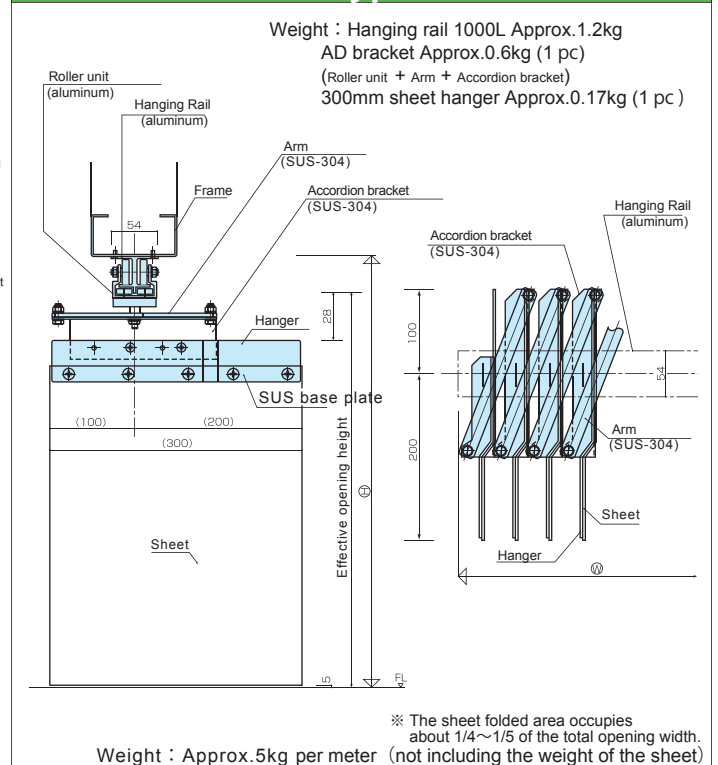
A-SW Fixing type for sheet width 200mm and 300mm



B-SW Sliding type for sheet width 200mm and 300mm



C-SW Accordion type for sheet width 300mm



Hyper accordion sheet

(for indoor use only)

Create beautifully an interior space with the function of stretching and retracting brought by the sheet.



Antistatic, Clear

The Hyper Accordion Sheet, minimized the joint space for each sheet, blocks vastly dust or wind whirling in indoor space. The sheet also excels in durability with its appropriate thickness.

Open and close of the sheet are smooth, just like it of sliding door. The sheet folded area when opened fully is so small as about 1/10 (for Type 250W) of the overall opening space, that enables to get a wider opening. The sheet is folded decently and it does not spoil the nice looking.

● Flame-retardant effect

Test number : AO 010249

Registered number : E-13-40520

Items with * marked have the effect

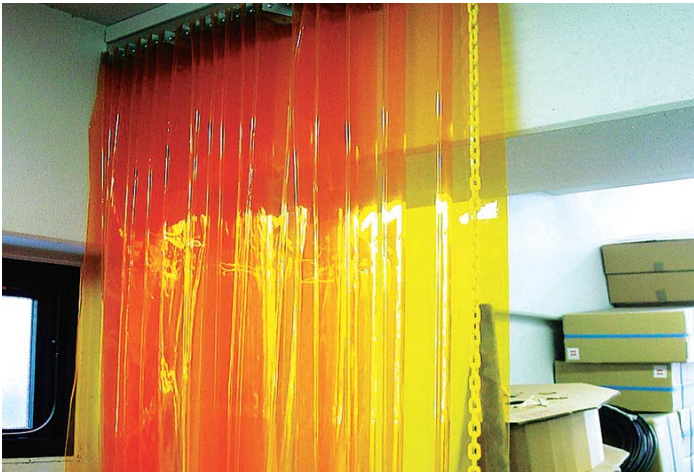


Registry number in the Fire department

FLAME RETARDANT

Authorized by Japan Fire Retardant Association

Water washing allowed / Need re-treatment of the flame-retardant in case of dry cleaning.

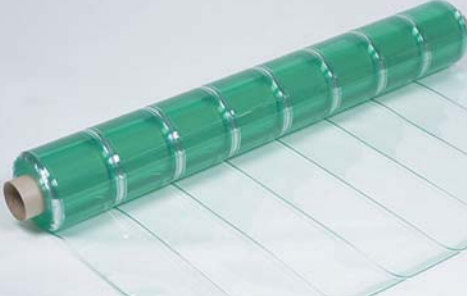

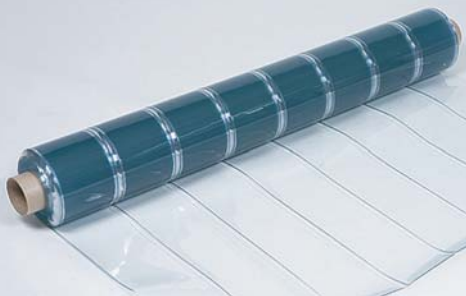
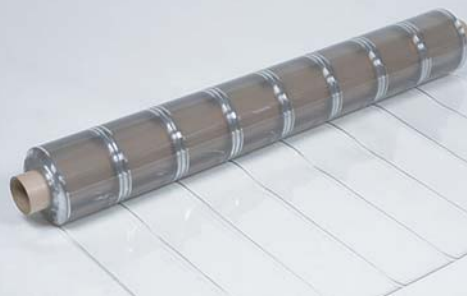
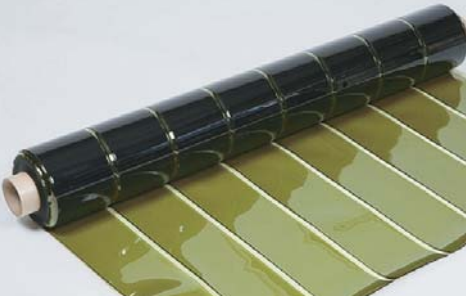


Antistatic & Insectproof, Orange



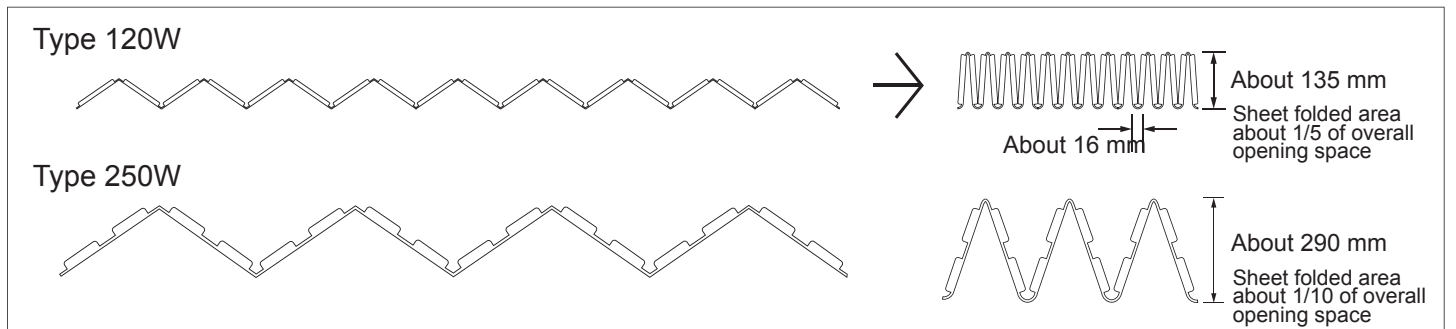
Antistatic, Clear

● Variety of sheet

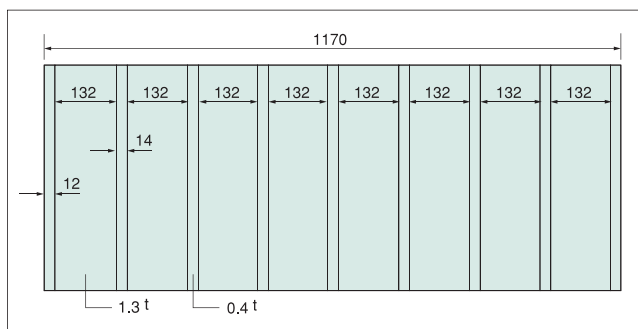
<p>Antistatic, Clear</p> 	<p>Antistatic & Insect-proof orange</p> 	<p>Antistatic & Flame retardant, Clear*</p> 
<p>Coldproof, Clear</p> 	<p>Insect proof, OPTRON</p> 	

For the feature of each sheet, please see page 4 "Variety of sheet".

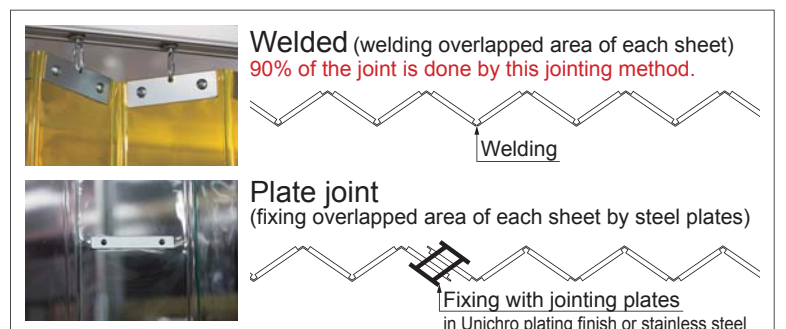
● Open and close formation



● Size of sheet material 1.3mm t x 1170mm x 12m



● Jointing method





Insectproof Optron



Coldproof, Clear

● Hanger

Type 120W

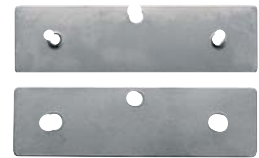


Type 250W

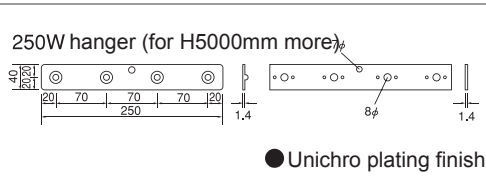
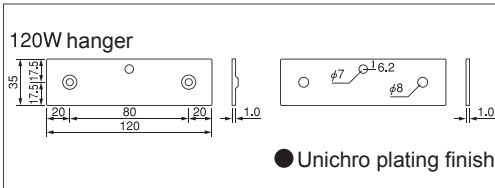


SUS 304 hanger (option)

For type 120W



For type 250W



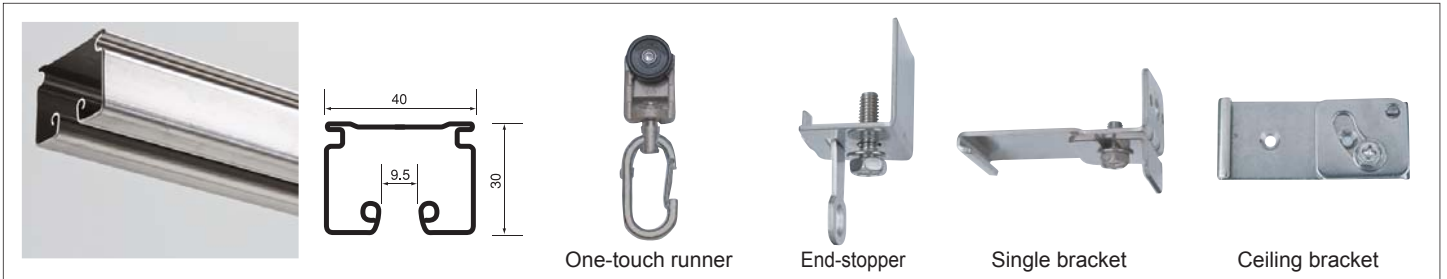
● SW large type aluminum curtain rail (length: 2m, 3m, 4m / radius: 500mm)

Weight: Approx. 0.8kg per meter



● SW large type stainless steel curtain rail (length: 3m, 4m / radius: 530mm)

Weight: Approx. 1.1kg per meter



Whenever the stainless steel curtain rail is used, the single bracket or the ceiling bracket should be used.



Antistatic & flame retardant, Clear



Antistatic & Insectproof, Orange

● Option



Large type aluminum curved rail
(r. 500mm)



Large type single bracket



Large type ceiling bracket



Lock



Chain lock with SUS hook



Sheet for covering space underneath of the rail (Clear – Frame-retardant & Antistatic Polyester yarn encapsulated vinyl sheet 0.5t)



Sheet for covering space underneath of the rail (Orange - insect-proof sheet 0.55t)



Fasten the end of sheet to the frame with hook-and-loop fastener (width 50mm) when closed-for single leaf



Fasten the end of both sheets with hook-and-loop fastener (width 50mm) when closed-for double leaves



Open/close with handle
- for single leaf



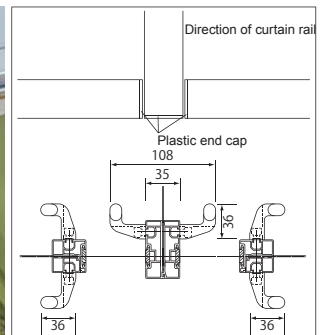
Open/close with grips
- for double leaves



With receiver (aluminum)
- for single leaf



3-way type of open/close with grips.



3-way type of open/close with grips
(Detail drawing)

● Note

- Use of SW large type normal runner or SW large type special runner : use the former for the opening size up to Height 3000 mm for 120W type, use the latter for the Height of 3000 mm more for 120W type, use the latter for all 250W type.
- Calculation of width of the sheet folded area when opened fully : number of the runner x 20 mm + the stopper 30 mm. (approx. 1/5 of the opening width for Type 120W and 1/10 for Type 250W)
- Weight : about 2.5Kgs/m² including sheet and rail.
- Weight of the hardware with handle for open/close: about 5Kgs/set for single leaf / about 10Kgs/set for double leaves
- Further details are gladly informed to you anytime on request.

Hyper curtain

(for indoor use only)

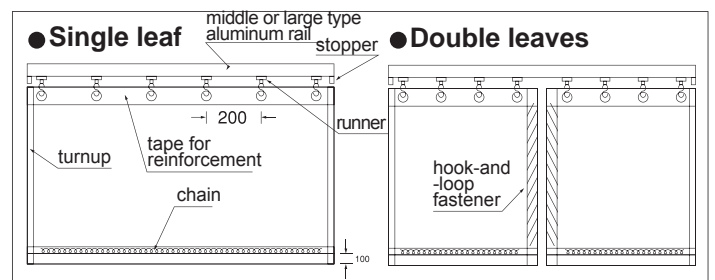
Keep indoor bright, recommendable as a partition for efficient air-conditioning



Standard, Clear

Making use of the characteristics of sheet, and with the variety of parts for rail, the Hyper Curtain provides the sheets in high durability contained threads and variety of sheet colors as well. Partition inside of a wide room with Hyper Curtain according to movement of people and realize an energy saving air flow by blowing wind into necessary space only. Moreover, it is possible to maintain the same lighting environment as just inside of room. Hyper Curtain also makes much of cost performance. It is especially recommendable to endusers who want to cherish indoor environment and, at the same time, to minimize the induction cost.

● Specs

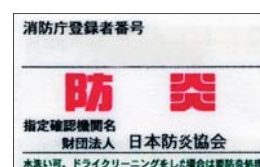


Weight of Sheet + Large scale rail: 0.3mm thick = Approx.1.2kgs per m²
0.5mm thick = Approx.1.5kgs per m²

● Flame-retardant effect

Test number : Individual numbers given to each products
Registered number : E-13-40520

Items with * marked have the effect



Registry number in the Fire department

FLAME RETARDANT

Authorized by Japan Fire Retardant Association

Water washing allowed / Need re-treatment of the flame-retardant in case of dry cleaning.

● Sheet with no thread

Standard, Clear		Light blue*		Light green*		Insect-proof orange*		Heat-proof*		Bronze*		Thermal insulation type, Clear*	
size	length	size	length	size	length	size	length	size	length	size	length	size	length
thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)
0.3 x 1370	30	0.3 x 1370	30	0.3 x 1370	30	0.3 x 1370	30	0.3 x 1070	30	0.3 x 1370	30	0.3 x 1070	30
0.5 x 1370	30	0.5 x 1370	20										

Weight : 0.3mm thick = 0.4kgs per m²
0.5mm thick = 0.7kgs per m²

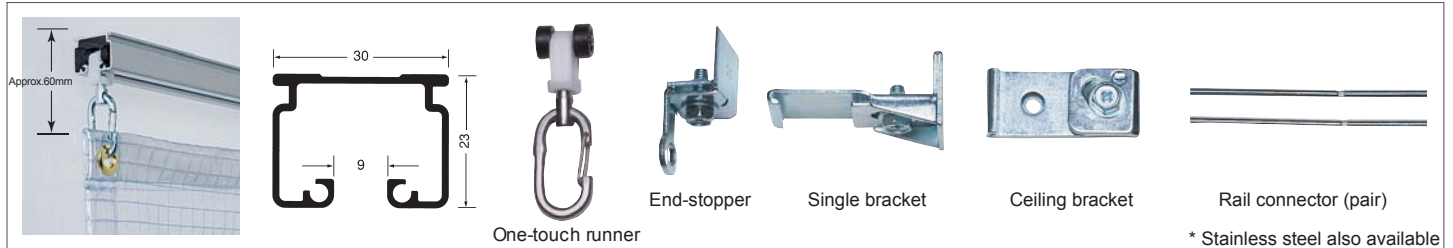
● Sheet with thread

Non-inflammable	Standard, Clear				Flameretardant clear*	Flame-retardant* & Antistatic clear	Insect-proof & Flame retardant*	Thermal insulation type, Clear*					
size	length	size	length	size	length	size	length	size	length				
thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)	thick(mm) x width(mm)	(m)				
0.27 x 1950	30	1cm square 0.3 x 2030	50	5mm square 0.42 x 2030	50	1cm square 0.55 x 2030	30	1cm square 0.5 x 2030	30	1cm square 0.55 x 2030	30	2cm square 0.3 x 1070	50
		2cm square 0.3 x 2030	50	1cm square 0.55 x 2030	30			2cm square 0.5 x 2030	30	1.5cm square 0.25 x 2030	50		
				2cm square 0.55 x 2030	30								

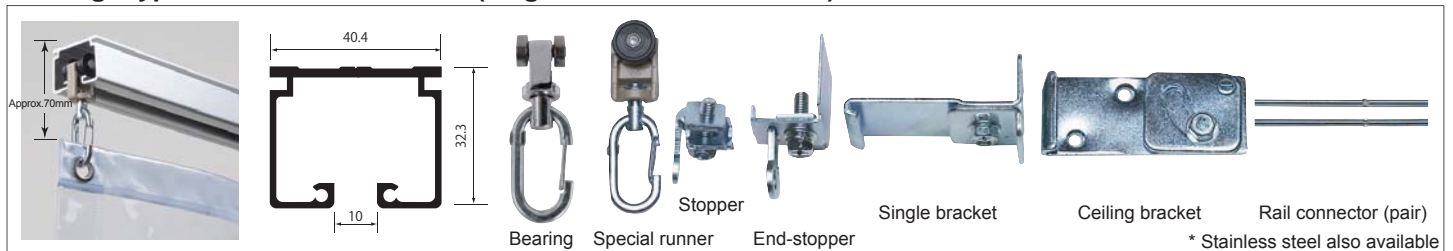
Weight : 0.3mm thick = 0.4kgs per m²
0.5mm thick = 0.7kgs per m²

● Curtain Rail

For medium type aluminum curtain rail (length: 2m / 3m / 4m / 300R)



For large type aluminum curtain rail (length: 2m / 3m / 4m / 500R)



● Option



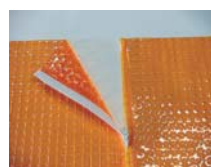
Open/close bracket with handle (large type). Weight: 5kgs per 500mm long (1pc).



Receiver (aluminum) - for single leaf



Fastener



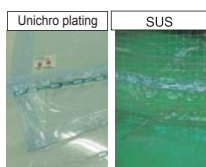
Open fastener



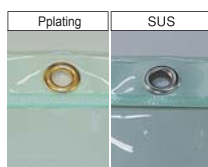
Hook-and-loop fastener (width 25mm & 50mm available)



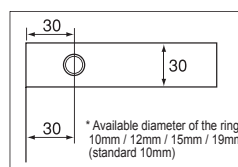
Magnet (width 30mm)



Chain at the bottom



Punch-hole ring in standard finish



Sheet for covering space underneath of the rail



Registry number in the Fire department
FLAME RETARDANT
Authorized by Japan Fire Retardant Association
Water washing allowed / Need re-treatment of the flame-retardant in case of dry cleaning.
Label of the flame retardant

Hyper curtain (with reinforcement)

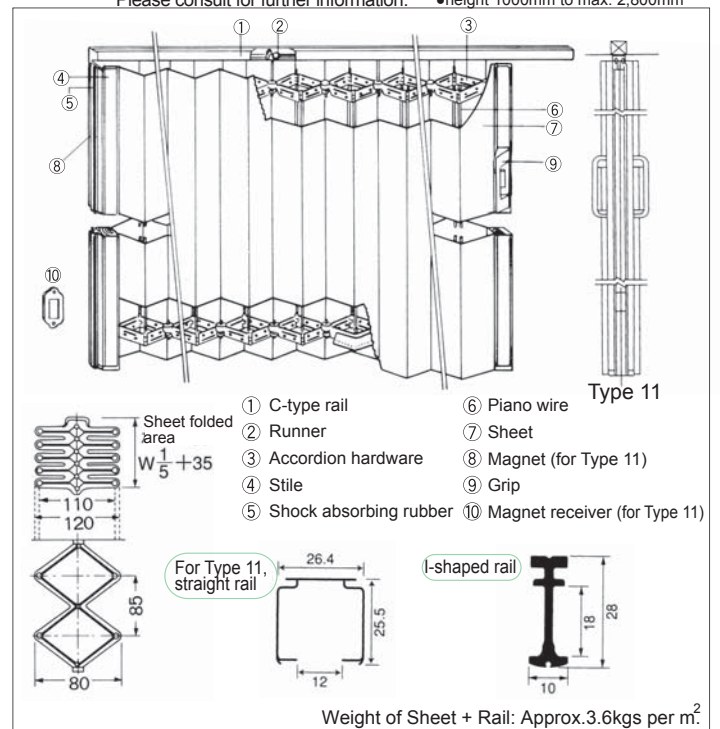
Reinforce the thin curtain sheet with frameworks of accordion hardware. Possible to open/close smoothly with the effect of the hardware, furthermore, to get wider opening with the narrow sheet folded area when opened fully. Available size for production up to the width 20m (single leaf) / height 5m in case of Type 22.



Standard, Clear

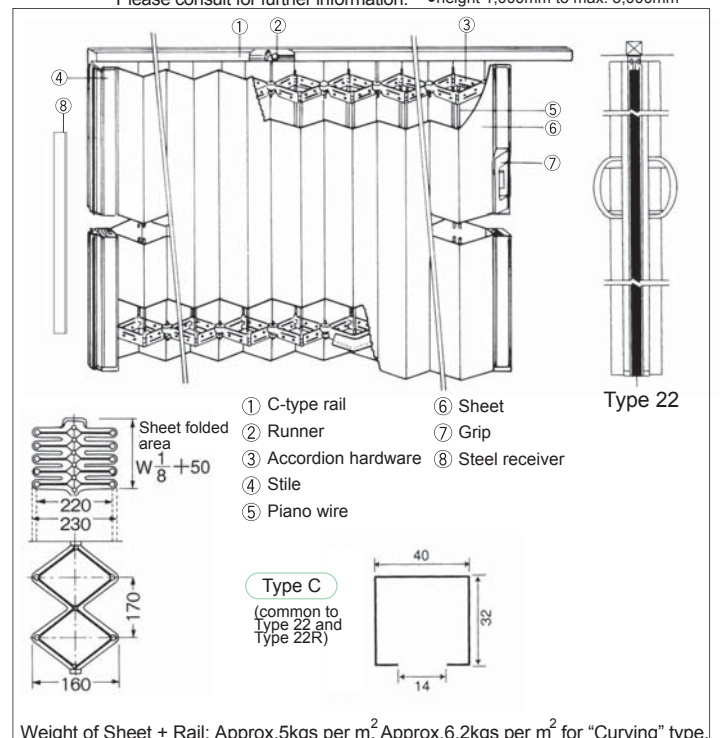
● Type 11

Recommended size. : ●width 770mm to max. 4,000mm
Please consult for further information. ●height 1000mm to max. 2,800mm



● Type 22

Recommended size. : ●width 1,000mm to max. 20,000mm
Please consult for further information. ●height 1,000mm to max. 5,000mm



List of Property

● Property of Slit Curtain (P3~6)

Note: The followings are measured values only and not warranted values.

Type of sheet		Flat Antistatic, Clear (2t.)	Flat Antistatic, Clear (3t.)	Flat Antistatic & flame retardant (2t.)	Flat Coldproof (2t.)	Flat Coldproof (3t.)	Remark
Topic of test							
Hardness (JIS A hardness gauge)		84	84	86	78	78	According to JIS A hardness gauge
Tensile strength (N)	Vertical	350	555	375	318	430	According to JISK6732
	Lateral	340	530	360	320	420	
Tensile elongation (%)	Vertical	350	390	350	400	400	According to JISK6732
	Lateral	390	420	370	460	410	
Tearing strength (N)	Vertical	100	150	120	67	120	According to JISK6732
	Lateral	105	160	120	72	123	
Light penetration (%)		90	88	88	87	87	According to JISK7105
Surface resistibility (Ω)		1.3×10 ¹¹	1.8×10 ¹²	1.3×10 ¹²	2.5×10 ¹¹	2.4×10 ¹¹	According to JISK6911
Cubic resistibility (Ω·cm)		4.0×10 ¹¹	3.4×10 ¹²	1.3×10 ¹²	5.2×10 ¹¹	5.4×10 ¹¹	
Brittle temperature (°C)		-35	-40	-28	-65	-65	According to JISK7201
Environment temperature at site		Standard temperature	Standard temperature	Standard temperature	5°C~-45°C		

● Property of Hyper Accordion Sheet (P7~10)

Note: The followings are measured values only and not warranted values.
The followings are values for the part of sheet plate only and do not involve the part of recess.

Type of sheet		Antistatic, Clear	Antistatic & insectproof, Orange	Antistatic & flame retardant	Coldproof	Optron	Remark
Topic of test							
Hardness (JIS A hardness gauge)		94	94	94	88	94	
Tensile strength (N)	Vertical	330	330	320	280	330	According to JISK6732
	Lateral	340	340	330	260	340	
Tensile elongation (%)	Vertical	320	320	310	350	320	According to JISK6732
	Lateral	330	330	330	380	330	
Tearing strength (N)	Vertical	105	105	100	80	105	According to JISK6732
	Lateral	105	110	110	85	110	
Light penetration (%)		92	64	90	92	41	According to JISK7105
Surface resistibility (Ω)		1.3×10 ¹²	2.4×10 ¹²	1.0×10 ¹²	9.0×10 ¹¹	2.4×10 ¹²	According to JISK6911
Cubic resistibility (Ω·cm)		1.4×10 ¹²	2.2×10 ¹²	2.2×10 ¹²	7.7×10 ¹²	2.6×10 ¹²	According to JISK6911
Brittle temperature (°C)		-40	-40	-28	-46	-40	According to JISK7201
Environment temperature at site		Standard temperature	Standard temperature	Standard temperature	-10°C~+10°C	Standard temperature	

● Property of Hyper Curtain (indoor use only) (P11~12)

Note: The followings are measured values only and not warranted values.

Type of sheet		Light green (0.3t.)	Light blue (0.5t.)	Remark	Type of sheet		Heat proof (0.3t.)	Remark
Topic of test					Topic of test			
Tensile strength (N)	Vertical	80	120	According to JISK6732	Hardness		90	According to JISK6732
	Lateral	75	110		Tensile strength (N)	Vertical	92	
Tensile elongation (%)	Vertical	300	330	According to JISK6732		Lateral	86	
	Lateral	330	320		Tensile elongation (%)	Vertical	300	
Modulus 100% (N)	Vertical	35	45	According to JISK6732		Lateral	350	
	Lateral	30	40		Tearing strength (N)	Vertical	22	
Tearing strength (N)	Vertical	23	28	According to JISK6732		Lateral	20	
	Lateral	23	30		Heat deformation rate (%)	4.5		120°C
Coldproof (°C)		-22	-25	ASTM D-1593		Brittle temperature (°C)	-18	
Surface resistibility (Ω)		1.2×10 ¹¹	1.3×10 ¹²	According to JISK6911	Flame retardant		Conformed	
Cubic resistibility (Ω·cm)		5.6×10 ¹¹	5.5×10 ¹¹	According to JISK7201				
Flame retardant		Conformed	Conformed	The fire law enforcement rule article 4 section 3				

● Property of Hyper Curtain with thread (indoor use only) (P11~12)

Note: The followings are measured values only and not warranted values.

Type of sheet		Clear 0.3mm(t.) / 1cm sq.	Clear 0.3mm(t.) / 2cm sq.	Clear 0.55mm(t.) / 1cm sq.	Clear 0.55mm(t.) / 2cm sq.	Clear 0.42mm(t.) / 5mm sq.	Flame retardant Clear 0.55mm(t.) / 1cm sq.	Flame retardant & antistatic clear 0.5mm(t.) / 1cm sq.	Flame retardant & antistatic clear 0.5mm(t.) / 2cm sq.	Antistatic & flame retardant Clear 0.25mm(t.) / 1.5cm sq.	Antistatic & flame retardant Clear 0.55mm(t.) / 1cm sq.
Tensile strength (N)	Vertical	420	100	390	120	530	390	410	120	170	390
	Lateral	390	110	360	130	520	360	400	120	170	360
Tensile elongation (%)	Vertical	20	16	22	13	18	22	20	25	15	22
	Lateral	17	17	22	17	17	22	18	25	20	22
Tearing strength (N)	Vertical	70	50	150	50	120	150	90	68	35	150
	Lateral	120	60	130	60	130	130	90	68	50	130

Other products being available



Zipper Shutter

Manual handling sheet shutter,
for indoor use only



Vinyl Booth • Clean Booth

Partition with no spoiling of its outside view even
if various machines and materials stored inside.
Further details are provided on request.

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- Due to the properties of printing ink, the color of the product may differ from the actual color.
- The specifications are subject to change without notice for improvements.