

SLIT CURTAIN



Slit curtain

For the backyard of food facilities and factories.



P3~6

Hyper accordion sheet (indoor use only)

For an indoor partition.



P7~10

Hyper curtain (indoor use only)

A thin sheet with high cost performance.



P11~12

Hyper curtain with reinforcement

Air-tightness is enhanced with 2 sheets.



P13

Slit curtain

Insect proof•Dust proof
It minimizes entering an object
from the outside.



Antistatic & Insect-resistant, Orange

● User comes first.

The Slit Curtain is a strip-shaped PVC vinyl curtain. The greatest features of the strip-shaped sheet are smooth opening/closing and free access from any place. Creating a sanitary environment is possible with the vinyl sheets.

● For maintaining comfortable indoor environment.

The Slit Curtain enables person goes in and out quickly between sheets so the air conditioning effect can be enhanced. A constant environment can be kept inside the room.

● The clear sheet can achieve the high daylighting properties.

Various types of sheets are available to meet customer's needs. A sheet having high transparency can provide excellent lighting property. It can light up a room such as a workspace etc.

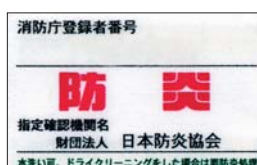
● Flame retardant effect

The flame-retardant sheet of slit curtain meets the fire-retardant product certification standard of the Japan Fire Retardant Association.

Test No.:AO 010246~8

Registration No.:E-[®]40520

The sheet with * mark can be safely used partitioning in a factory where requires the flame retardant effect.



Registration No. in the Fire Department.

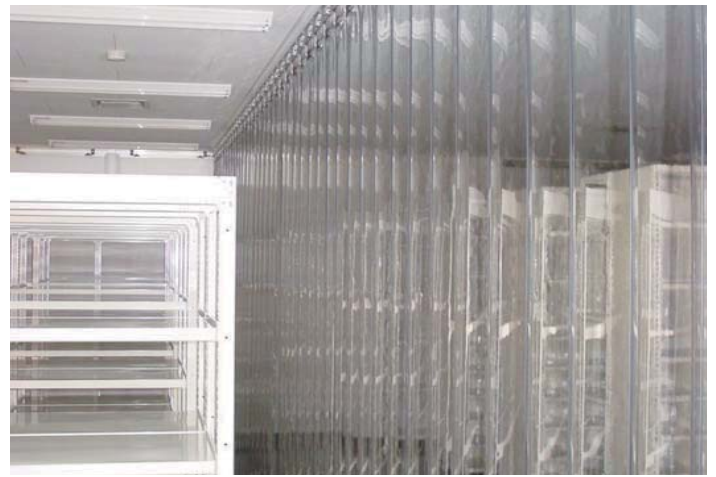
FLAME RETARDANT

Authorized by the Japan Fire Retardant Association

Washable with water, but the flame-proof retreatment is necessary.



Antistatic, Clear



Super Cold-proof

● Variety of sheet

Flat sheet :

Antistatic, Clear			Antistatic & Insect-resistant, Orange			Super cold-proof			Antistatic & flame retardant, Clear*			Antistatic & flame retardant, Insect-resistant, 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	0.6	2×200	12, 30	0.6	2×200	12, 30	0.6	2×200	12, 30	0.6	2×200	30	0.6	—	—	—
2×300	12, 30	0.8	2×300	12, 30	0.8	2×300	12, 30	0.8	2×300	12, 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	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-resistant, Orange			Super cold-proof			Antistatic & flame retardant, Clear*			Antistatic & flame retardant, Insect-resistant, Orange*			Insect resistant, OPTRON		
Antistatic clear sheet with rib.			Antistatic & Insect-resistant 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-resistant 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	0.7	2×200	12, 30	0.7	2×200	12, 30	0.7	2×200	30	0.7	2×200	30	0.7	2×200	30	0.7
2×300	12, 30	0.9	2×300	12, 30	0.9	2×300	30	0.9	2×300	30	0.9	2×300	30	0.9	2×300	30	0.9
3×200	30	0.9	3×200	30	0.9	3×200	30	0.9	—	—	—	—	—	—	—	—	—
3×300	12, 30	1.3	3×300	12, 30	1.3	3×300	30	1.3	—	—	—	—	—	—	3×300	30	1.3

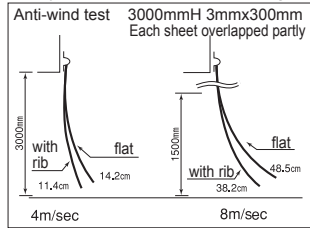
For partition (wide sheet)

Antistatic, Clear		Antistatic & Insect-resistant		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

*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

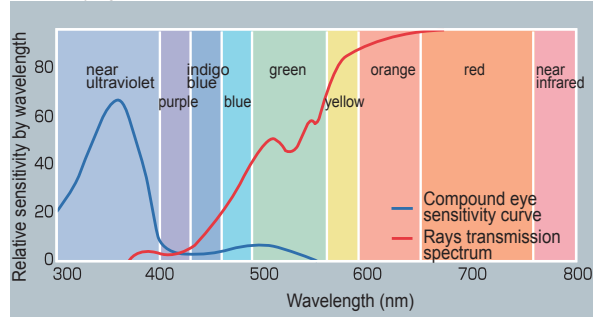
To prevent rain or wind come into indoor by strengthening air tightness with the Slit Curtain's own weight by its thickness and with the overlap of each sheet. Even when wind is rather strong, the Slit Curtain can easily be used without its turning up.



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

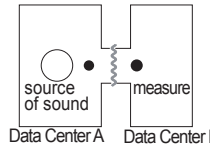
● Anti-insect effect

Insect resistant 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

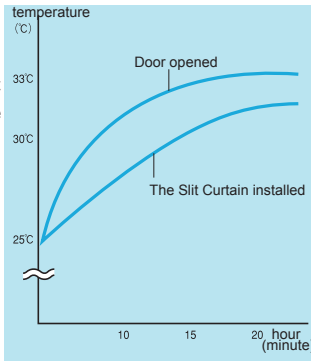
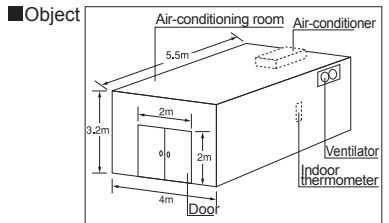
● Air-conditioning effect

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

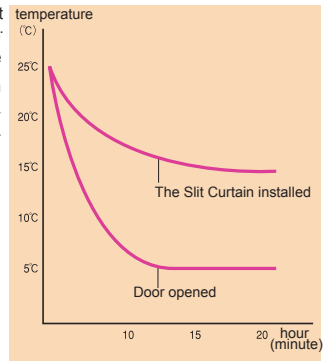
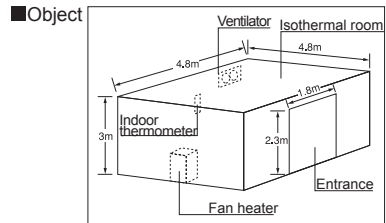
Air-conditioner	2.2kw
Ventilator	70w
Average outside temperature	33°C
Indoor temperature	25°C
Flat sheet	thickness 2mm width 200mm overlapped partly



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

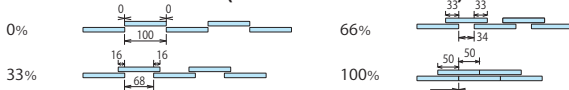


● Overlap ratio of each sheet (*Numbers are approximate values for reference)

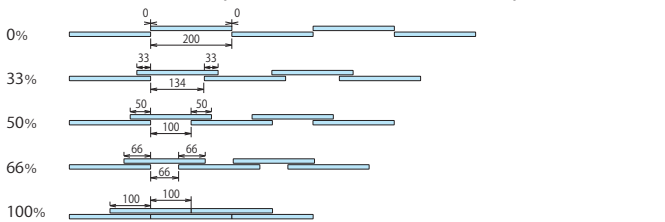
For MC series and ZS series

■ Metal fittings : Fixing type, Sliding type

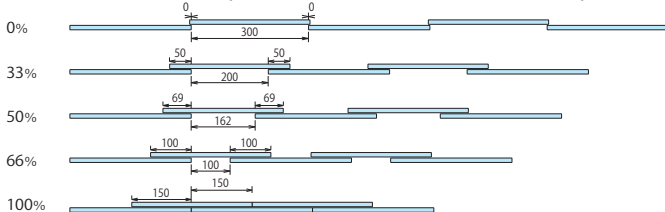
Sheet width 100mm (Sheet thickness. 2mm)



Sheet width 200mm (Sheet thickness. 2mm, 3mm)



Sheet width 300mm (Sheet thickness. 2mm, 3mm, 4mm)

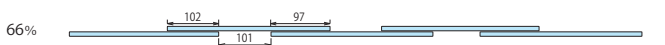


■ Metal fittings : Accordion type

Sheet width 100mm Sheet width 200mm



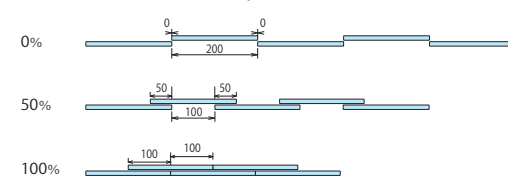
Sheet width 300mm



For SW series

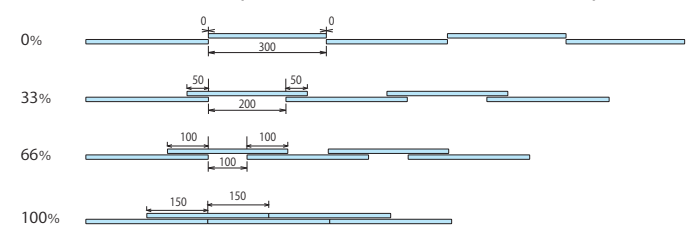
■ Metal fittings : Fixing type, Sliding type (50% overlap ratio only)

Sheet width 200mm (Sheet thickness. 2mm, 3mm)



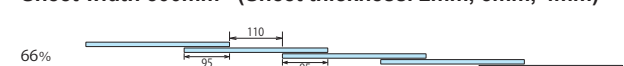
■ Metal fittings : Fixing type, Sliding type (33% & 66% overlap ratio only)

Sheet width 300mm (Sheet thickness. 2mm, 3mm, 4mm)



■ Metal fittings : Accordion type

Sheet width 300mm (Sheet thickness. 2mm, 3mm, 4mm)



Hyper accordion sheet

(for indoor
use only)

Stretching function of the sheet can
produce a beautiful interior space.



Antistatic, Clear

Hyper Accordion Sheet is minimized the sheet joining part. The drastic reduction of dust and wind in a room can be achieved. Its thick sheet having excellent durability.

It can be smoothly opened/closed with the same feeling as that of a sliding door.

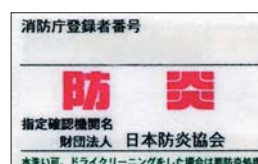
The folding margin when it is fully opened is about 1/10 of its opening width (250W-type) and small, so it can secure a large opening. The sheet can be nicely folded without impairing its beautiful appearance.

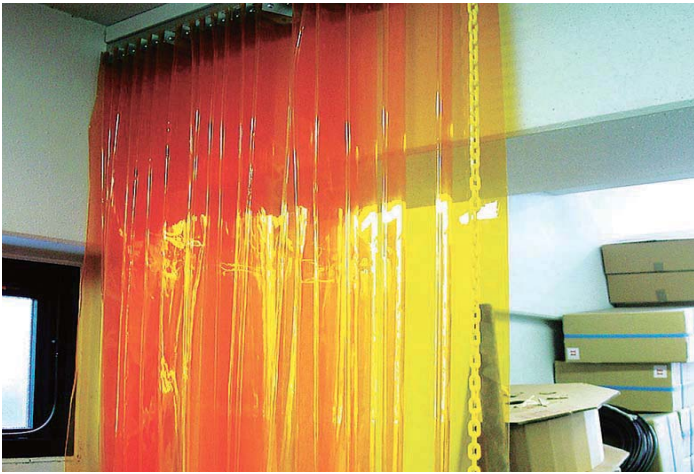
● Flame retardant effect

Test No.:AO 010249

Registration No.:E-⑬-40520

The sheet with * mark can be safely used partitioning in a factory where requires the flame retardant effect.





Antistatic & Insect-resistant, Orange



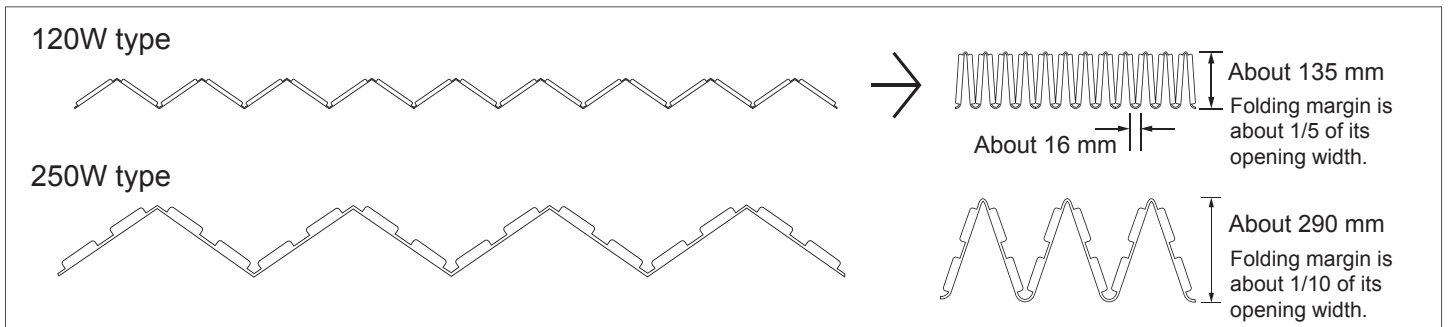
Antistatic, Clear

● Variety of sheet

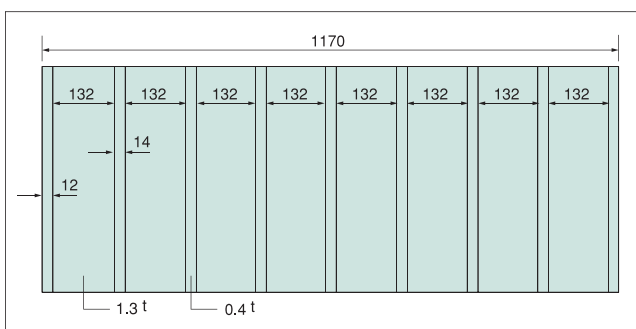
<p>Antistatic, Clear</p> 	<p>Antistatic & Insect-resistant, Orange</p> 	<p>Antistatic & Flame retardant, Clear*</p> 
<p>Cold-proof, Clear</p> 	<p>Insect-resistant, OPTRON</p> 	

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

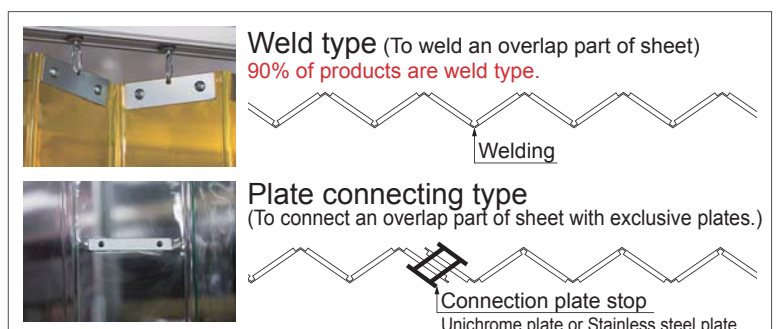
● Figure of opening/closing structure



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



● Connection method





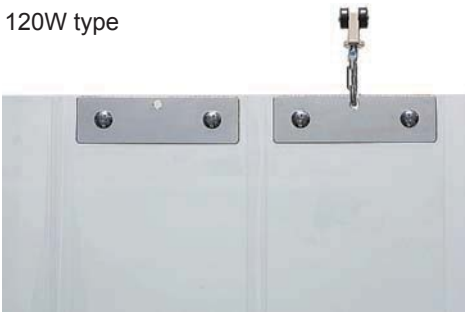
Insect-resistant OPTRON



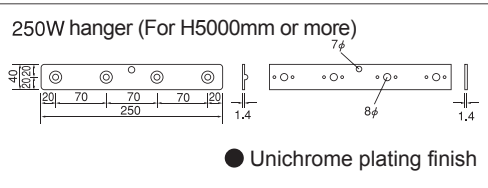
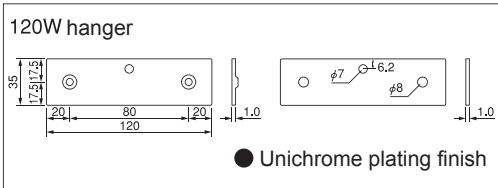
Cold-proof, Clear

● Hanger

120W type

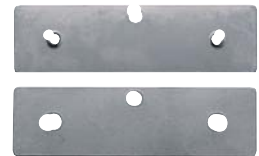


250W type

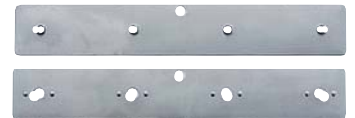


SUS 304 hanger (option)

For 120W type




For 250W type

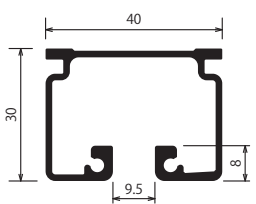



● SW large type aluminum curtain rail (length: 2m, 3m, 4m / 500R)


Weight: Approx. 0.8kg per meter




SW large type alminum curtain rail

Special runner (for heavy weight up to about 10Kg)




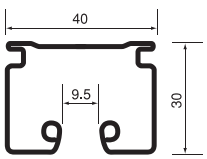

Stopper




End-stopper

● SW large type stainless steel curtain rail (length: 2m, 3m, 4m / 530R)


Weight: Approx. 1.1kg per meter


One-touch runner



End-stopper



Single bracket



Ceiling bracket

Please make sure to use a single bracket or a ceiling bracket when a SUS curtain rail is used.



Antistatic & flame retardant, Clear



Antistatic & Insect-resistant, Orange

● Option



Large type aluminum curved rail
(R. 500mm)



Large type single bracket



Large type ceiling bracket



Dead bolt Chain lock with SUS hook



Sheet for the bottom gap of the rail
(Antistatic & Flame-retardant type.
0.5t yarn-incorporated.)



Sheet for the bottom gap of the rail
(Insect-resistant type. 0.55t
yarn-incorporated)



Velcro tape for single leaf
(50mm width)



Velcro tape for double leaves
(50mm width)



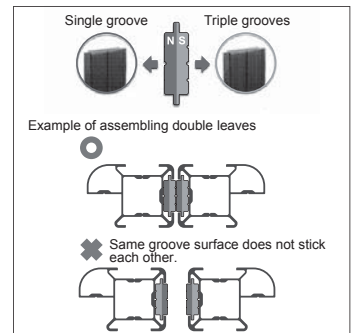
Aluminum opening/closing fitting
with a handle for single leaf



Aluminum opening/closing fitting
with a handle for double leaves



Aluminum bracket for single leaf



Aluminum opening/closing fitting with
a handle for double leaves (Detailed
drawing of the magnet surface)

● Note

- The calculation method of the folding margin is the number of runner x 20mm +30mm (Stopper part).
(Approximate measurements for 120W type is about 1/5 of its opening width. For 250W type is about 1/10 of its opening width.)
- Weight: About 2.5kg/m² including a sheet and a rail.
- Aluminum opening/closing fitting with a handle for single leaf is about 6kg/set, 12kg/set for double leaves.
- Please feel free to contact us for other specifications.

Hyper curtain indoor (for indoor use only)

It keeps the inside of the room bright.
For a partition of air conditioning.

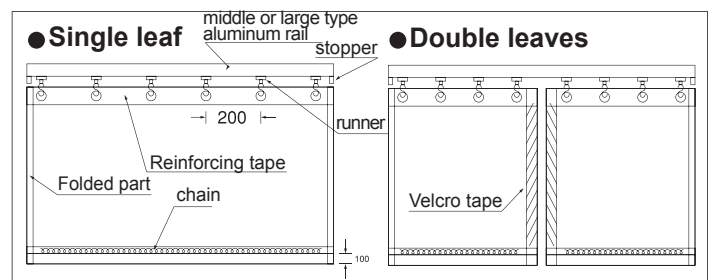


Standard, Clear

The Hyper Curtain makes the best use of characteristics of sheet with the wide variety of rail parts. It can provides rich lineups of colors and types such as the yarn-incorporated type having increased durability.

To realize energy saving by partitioning a wide room with the Hyper Curtain according to the movement of a person and sending a wind to a space only required. At the same time, same level of daylighting environment inside room can be achieved and it has good cost performance. It is recommended for the user who wants to minimize the induction cost while caring for the indoor environment.

● Specification reference drawing



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

● Flame retardant effect

Test No.: It is different per product.

Registration No.:E-⑬-40520

The sheet with * mark can be safely used partitioning in a factory where requires the frame retardant effect.



● Sheet with no thread

Standard, Clear		Light blue*		Light green*		Insect-resistant, Orange*		Heat-proof*		Bronze*		Thermal insulation type, Clear*	
size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (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

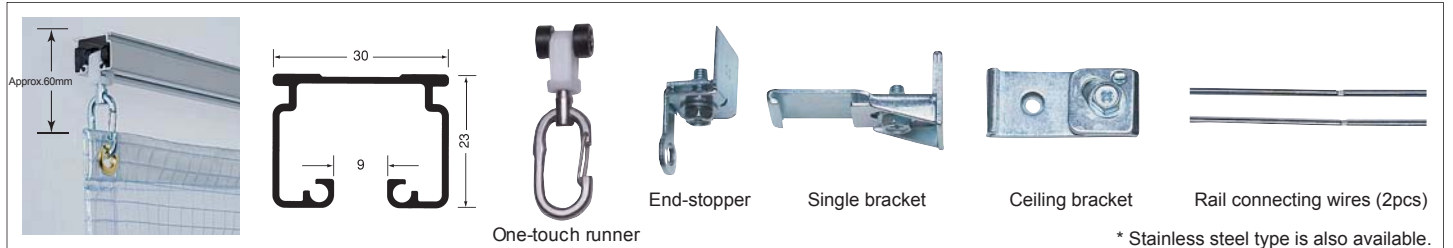
● Sheet with thread

Nonflammable		Standard, Clear				Flame retardant & Antistatic clear*		Insect-resistant & Flame retardant*		Cold-proof & Flame retardant, Clear*		Thermal insulation type, Clear*	
size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)	size thick(mm) x width(mm)	length (m)
0.27 x 2030	30	1cm square 0.3 x 2030	50	5mm square 0.42 x 2030	50	1cm square 0.5 x 2030	30	1cm square 0.55 x 2030	30	2cm square 0.53 x 2050	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 0.3 x 2050	50		
				2cm square 0.55 x 2030	30	1cm square 0.3 x 2030	50						

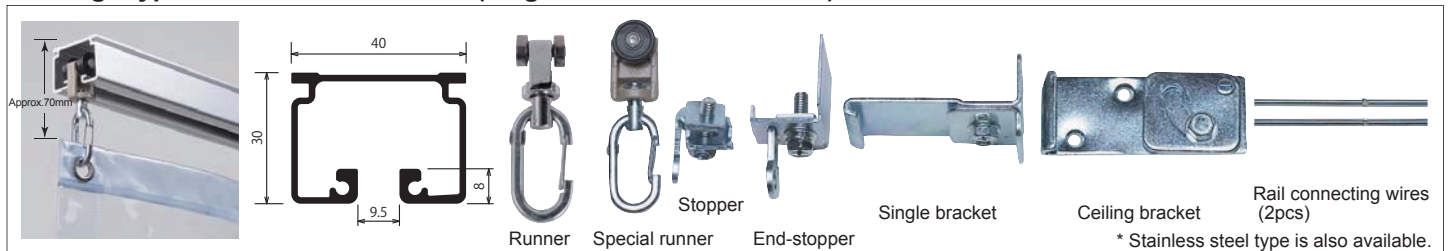
Weight : 0.3mm thick = 0.4kgs per m²
0.5mm thick = 0.7kgs per m²

● 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



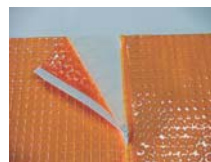
Opening/closing fitting with a handle for single leaf (Large type).
Weight: about 6kg per 5000L (1pc).



Aluminum bracket for single leaf



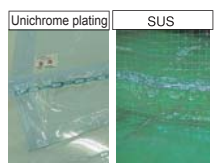
Zipper



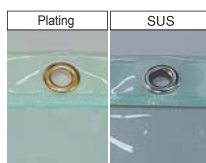
Open zipper



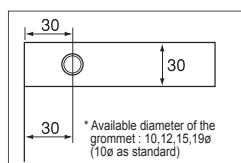
Velcro tape (Width 25mm & 50mm are available)



Chain-containing lower part
Weight: about 0.15kg per meter.



Grommet (standard specification)



* Available diameter of the grommet: 10, 12, 15, 19φ (10φ as standard)



Sheet for the bottom gap of the rail



Flameproof label

Hyper curtain (with reinforcement)

The accordion metal fitting with the framework structure can provide the thin sheet with strength. It can be opened/closed smoothly due to the effect of the metal fitting. The folded part is narrow in fully opening it and capable of securing a large opening. The maximum manufacturing size for Type 22 is up to the width of 20m (for double leaves) and the height of 4m.



Standard, Clear

● Type 22

Available size (Further discussion needed) : width 1,000mm to max. 20,000mm
height 1,000mm to max. 4,000mm

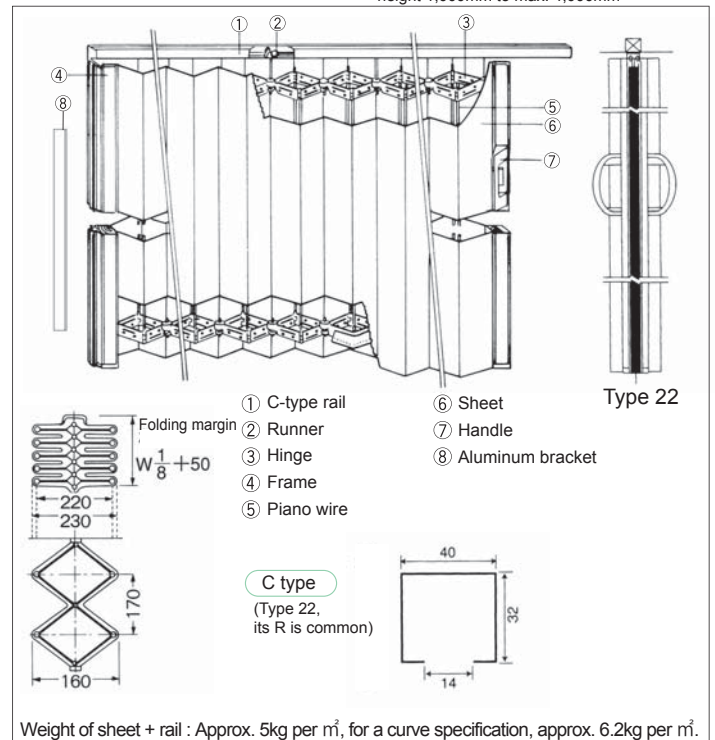


Table of material properties

● Slit Curtain (P3~6)

Note: The following figures are measured values, not the values for guaranteeing.

Type of sheet		Flat Antistatic, Clear (2t.)	Flat Antistatic, Clear (3t.)	Flat Antistatic & flame retardant (2t.)	Flat Super Cold-proof (2t.)	Flat Super Cold-proof (3t.)	Measurement methods
Test items							
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 ¹²	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 ¹²	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		

● Hyper Accordion Sheet (P7~10)

Note: The following figures are measured values, not the values for guaranteeing.

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, Clear	Insect resistant, Optron	Measurement methods
Test items							
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	

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

Note: The following figures are measured values, not the values for guaranteeing.

Type of sheet		Light green (0.3t.)	Light blue (0.5t.)	Measurement methods	Type of sheet		Heat proof (0.3t.)	Measurement methods
Test items					Topic of test			
Tensile strength (N)	Vertical	80	120	According to JISK6732	Hardness		82	
	Lateral	75	110					
Tensile elongation (%)	Vertical	300	330	According to JISK6732	Tensile strength (N)	Vertical	31	According to JISK6732
	Lateral	330	320			Lateral	25	
Modulus 100% (N)	Vertical	35	45	According to JISK6732	Tensile elongation (%)	Vertical	297	According to JISK6732
	Lateral	30	40			Lateral	339	
Tearing strength (N)	Vertical	23	28	According to JISK6732	Tearing strength (N)	Vertical	27	According to JISK6732
	Lateral	23	30			Lateral	24	
Coldproof (°C)		-22	-25	ASTM D-1593	Heat deformation rate (%)		8.7	120°C
Surface resistibility (Ω)		1.2×10 ¹¹	1.3×10 ¹²	According to JISK6911	Flame retardant		Conformed	The fire law enforcement rule article 4 section 3
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				

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

Note: The following figures are measured values, not the values for guaranteeing.

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.	Cold-proof & 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	196	410	120	170	390
	Lateral	390	110	360	130	520	196	400	130	170	360
Tensile elongation (%)	Vertical	20	16	22	13	18	18	20	28	15	22
	Lateral	17	17	22	17	17	24	18	25	20	22
Tearing strength (N)	Vertical	70	50	150	50	120	186	90	41	35	150
	Lateral	120	60	130	60	130	186	100	47	50	130

Introduction of other products



Zipper Shutter

Manual type sheet shutter for indoor use only.



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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.