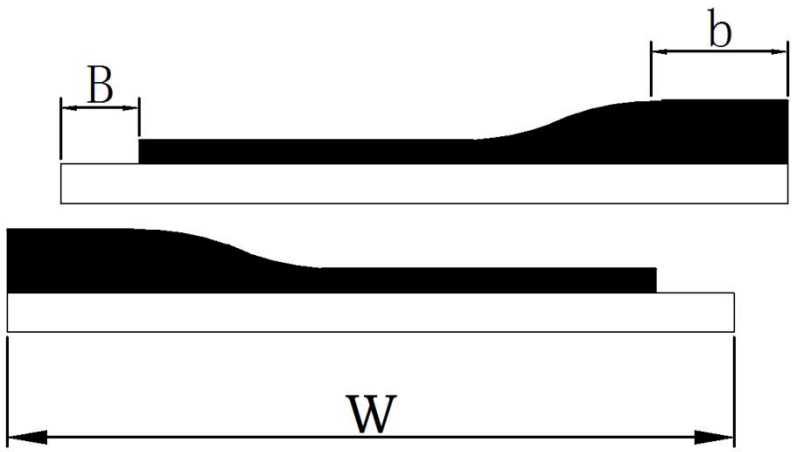
Capacitor Grade Metallised Plastic Film

One side metallization OPP film with Zinc-Aluminum with high resistance (Single Margin)



Base film	Polypropylene film
Normal thickness	2.0 μ m ~12.0 μ m
Margin type	Single
Coating metal	Zinc-Aluminum alloy
Coating side	Single
Edge structure	Heavy edge

Square resistance

Reinforced resistance	Normal resistance
(2～4) Ω /□	(6～55) Ω /□Gradient
	(6～80) Ω /□Gradient
	(6～100) Ω /□Gradient
	(6～120) Ω /□Gradient

Normal film Width and Margin

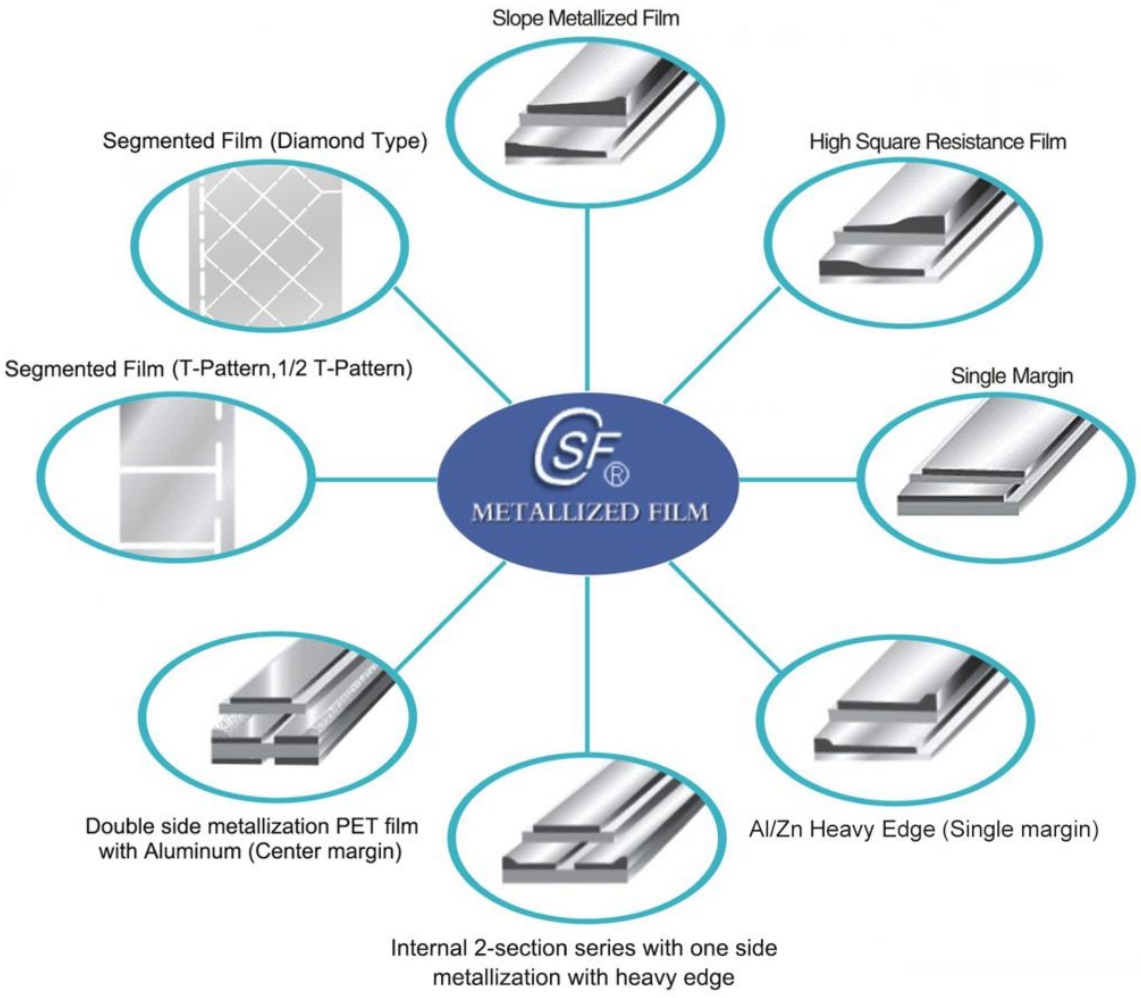
宽度(W) Width (mm)	留边量(B) Margin(mm)	宽度(W) Width (mm)	留边量(B) Margin(mm)
37.5	2.0/2.5	90	2.0/2.5
50	2.0/2.5	95	2.0
55	2.0/2.5	100	2.5
60	2.0/2.5	110	2.5
62.5	2.0	115	2.5
75	2.0/2.5		

Note: If customer needs other resistance, film width or margin, please contact us.

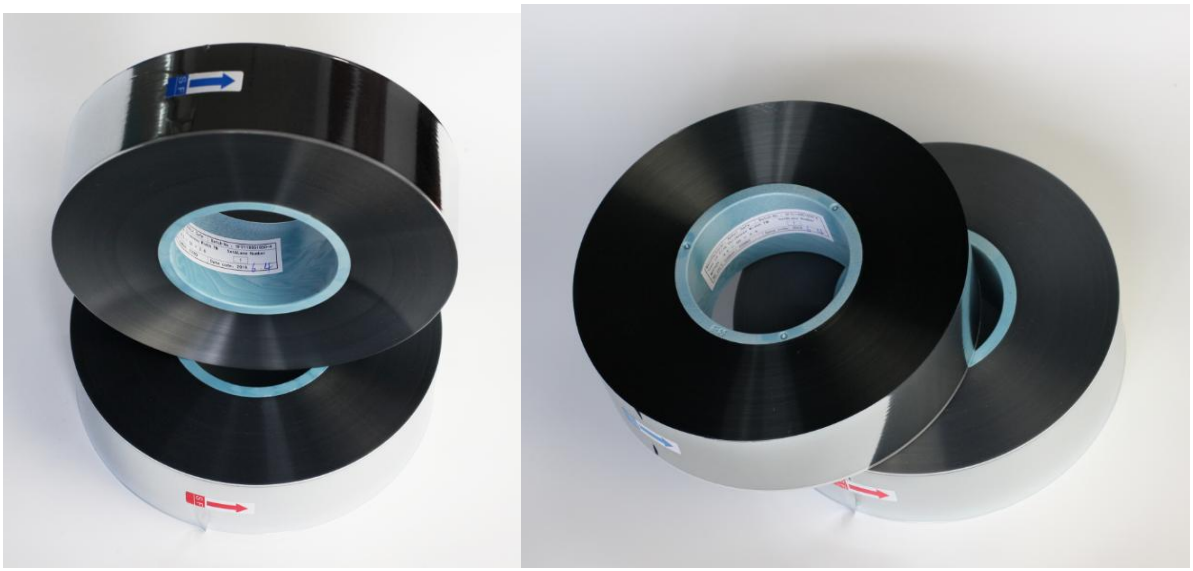
Inside/outside core diameter：

Inside core diameter/Tolerance		Outside core diameter/Tolerance	
75mm	+1/-0.5mm	175 220 280 320	±25mm ±20mm ±20mm ±20mm
Note: A pair tolerance of outside core diameter ≤2mm.			

Types of Metallized Layer：



Capacitor grade metallised plastic film



Type and named of metallized film:

Type code	Specification size	Margin type
M Metallized PP Polypropylene film PET Polyester film PPH High temperature OPP film Zn Metal coating is Zinc Al Metal coating is Aluminum H Heavy edge D Double side metallized F Segmented metallized film	The first section: Thickness Unit: μm The second section: width Unit: mm The third section: Margin width Unit: mm	S Single margin T Double margin M Middle margin R Internal three series V Internal four series

The representation method of film thickness is by adding a decimal point to the integral value of the film thickness or adding an English code (see the following table).

English code	Numerial number	English code	Numerial number
Negative tolerance		Positive tolerance	
B	-0.4	V	+0.1
C	-0.3	W	+0.2
D	-0.2	X	+0.3
E	-0.1	Y	+0.4
L	0	Z	+0.5

For example：6D means thickness is 5.8μm, 2W means thickness is 2.2μm

Specifications of Metallised polypropylene film:

Properties	Unit	Typical value
Density	g/cm^3	0.905±0.005
Thickness	μm	2.0 ～ 12
Tensile Strength	MD (MPa)	≥100
Elongation at Break	MD (%)	20～200
Elastic Modulus	MD (MPa)	2800
Heat Shrinkage	MD (%)	≤5 (120°C, 10min)
Wetting Tension	mN/m	38 (电晕处理面 Corona treated side)
Surface Roughness	μm	0.08
Melting Point	℃	172
Volume Resistivity	Ω .m	＞10^{15}
Break-dowm Voltage	V/μm	≥350 (23°C, DC)
Dielectric Constant		2.2 (**20℃，1KHz**)
Dissipation Factor		≤4×10^{-4} (**20℃，1KHz**)
RC	Ω F	≥5×10^4

Specifications of Metallised polyester film:

Properties	Unit	Typical value		
Density	g/cm^3	1.4		
Thickness	μm	＜5	5～12	≥12
Tensile Strength	MD (MPa)	≥84	≥108	≥120
Elongation at Break	MD (%)	≥22	≥33	≥44
Elastic Modulus	MD (MPa)	3500		
Break-dowm Voltage	V/μm	≥200 (23°C, DC)	≥250 (23°C, DC)	
Heat Shrinkage	MD (%)	≤2.5 (150°C, 10min)		
Surface Roughness	μm	0.095		
Melting Point	℃	256		
Volume Resistivity	Ω.m	＞10^{15}		
Dielectric Constant		3.2		
Dissipation Factor	-	≤60×10^{-4}		
RC	Ω F	≥1×10^{4}		

Packing:

- Film rolls are packed in plastic bags, vacuumed and put into desiccant for heat s ealing.
- The Bags are marked with type labels, mark thickness width, free margin width and resistance.
- The bags are packed in carton cases.

The cartons are wrapped by wooden cases or reinforced carton.

■ Storage

➢ Metallized film should be stored in its original package with temperature 5 - 35℃ and humidity less than 85%RH before using.

➢ Metallized layer is easily oxidized when exposure to moisture. Therefore, the film should be used as soon as possible when opened.

➢ The recommended temperature is 15 -25℃ with humidity less than 60%RH after opening

➢ With original sealed package, and stored as mentioned above, the storage time can be as following:

Al metallized film: 12 months from the delivery date. Al/Zn Alloy metallized film: As zinc is quite unstable , the storage period (from delivery date) depends on the resistance of the film:

≤10 Ω/□: 6 months

10 ～30Ω/□: 3 months

＞30Ω/□: 1month