



Capacitor Grade Metallised Plastic Film

Segmented metallized film

A type: Diamond Pattern



B type: T- Pattern



C type: 1/2 T- Pattern



Normal film Width and Margin

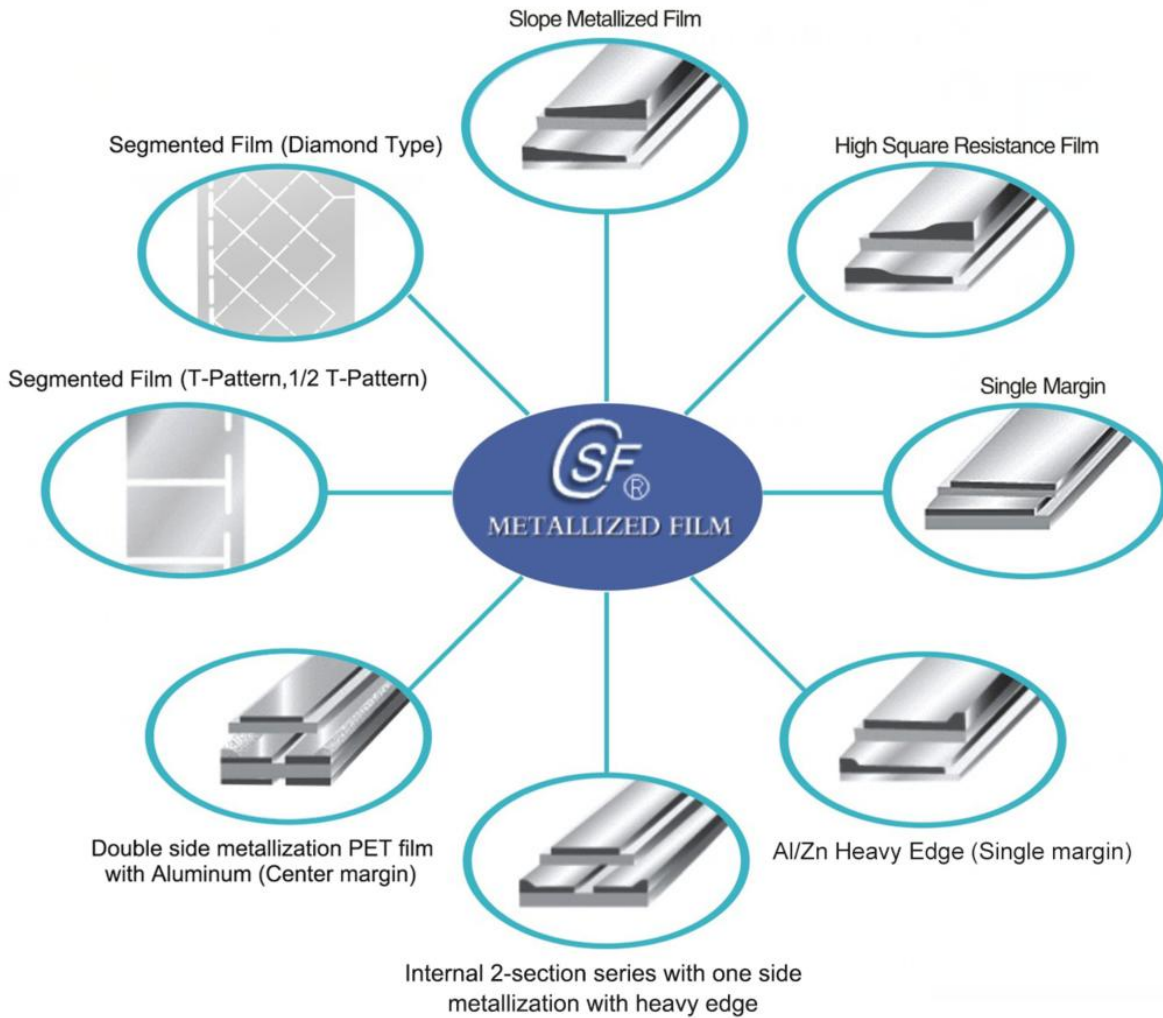
全菱形安全膜 Diamond Pattern		全T形安全膜 T-Pattern	半T形安全膜 1/2 T-Pattern
宽度(W) Width (mm)	宽度(W) Width (mm)	宽度(W) Width (mm)	宽度(W) Width (mm)
25	60	30	37.5
30	75	37.5	
35	85	50	
37.5	90	75	
40	100		
45	120		
50			



Capacitor grade metallised segmented film



Types of Metallized Layer:





Type and named of metallized film:



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

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 5.8 μ m, 2W means thickness is 2.2 μ m



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	°C	172
Volume Resistivity	Ω .m	> 10 ¹⁵
Break-down Voltage	V/μm	≥350 (23°C, DC)
Dielectric Constant		2.2 (20°C, 1KHz)
Dissipation Factor		≤4×10 ⁻⁴ (20°C, 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-down 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	°C	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 sealing.



- 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°C 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°C 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:
 $\leq 10 \Omega / \square$: 6 months
 $10 \sim 30 \Omega / \square$: 3 months
 $> 30 \Omega / \square$: 1month