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Copper Clad PI Flex Laminates and Coverlays

Taiflex flexible base materials

Taiflex is a Taiwanese company with production facilities in Taiwan and China. They are focused on the production of flexible materials based on polyimide. The products are thin and flexible laminates with single and double side copper clad.

These laminates are available with a bonding layer of epoxy between copper and polyimide, but also adhesiveless for enhanced thermal properties. Supplementary there are several polyimide coverlays available, also with epoxy adhesive. Finally also pure epoxy based bond plies are available.

All products are halogen free and can be processed with lead free soldering.

Product overview:

Productdescription	Taiflex product designation	Copper	Dielectric	Adhesive	Remark
1s, 2s laminate	THK...	ED, RA	Polyimide	Epoxy	with Epoxy adhesive
1s laminate 2s laminate	2LP... 2FP... 2UP...	ED, RA	Polyimide	---	adhesiveless
Coverlay	FHK... FHW... FHB...	---	Polyimide	Epoxy	yellow, halogen free white, halogen free black, halogen free
Bond ply	BB... BT... BH...	---	---	Epoxy	longer shelflife high Tg, Std. lam. Quicklam
Composite film	MHK...	---	Polyimide	Epoxy	halogen free
Stiffener	RH...	---	Polyimide	Epoxy	halogen free

Further information (storage conditions, shelf-life etc.) are available in our separate technical datasheets.


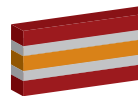
Taiflex is certified for various quality and environmental management systems. Many OEMs have qualified this material for flex applications and specify it in their documents.



The products are listed at UL and fulfill the requirements of REACH and ROHS.




THK ... : flexible polyimide laminate with epoxy adhesive

Single side copper (1s)		Double side copper (2s)		
				
	Copper	Copper		
	Epoxy	Epoxy		
	Polyimide	Polyimide		
		Epoxy		
		Copper		
T	Product name			
H	H=halogen free			
K	PI-film type (K=Kapton)			
S	S: single side - D: double side (copper clad)			
10	PI-film thickness: 05=12µm; 10=25µm; 20=50µm			
05	Cu-foil thickness: 03=12µm; 05=18µm; 10=35µm; 20=70µm			
20	Epoxy adhesive thickness: 13µm; 20µm; 50µm			
ME	Type of copper: ME/WP/MW/WD/JE means ED-copper; JY/JA/JC/JD means RA-copper			
0	Definition of roll width: 0=500mm; 1=250mm			

2LP.../2FP... /2UP...: flexible polyimide laminate adhesiveless


Single side copper (1s)



Copper
Polyimide

2LP: copper foil coated with polyimide resin and thermally cured

Double side copper (2s)






Copper
TPI
Polyimide film
TPI
Copper


2FP/2UP: copper foil laminated with thermoplastic polyimide (TPI)

2FP	Product name: 2LP; 2FP; 2UP
S	S: single side - D: double side (copper clad)
E	Type of copper: E=ED copper; R=RA copper
10	PI-film thickness: 05=12μm; 10=25μm; 20=50μm
10	Cu-foil thickness: 03=12μm; 05=18μm; 10=35μm
ME	Type of copper: ME/WP/WD/MW/JE means ED-copper; JY/JA/JC/JD means RA-copper
0	Definition of roll width: 0=500mm; 1=250mm

FHK.../FHP.../FHW... : polyimide coverlay with epoxy adhesive

						White ink Polyimide Epoxy (B-stage) Release paper
FHK-yellow		FHB-black		FHW-white (separate ink layer)		
F	Product name					
H	H=halogen free					
K	PI-film type: K=yellow (Kapton); B=black (PI); W=white					
05	PI-film thickness: 05=12µm; 10=25µm; 20=50µm					
25	Epoxy adhesive (B-stage) thickness: 15=15µm; 25=25µm; 35=35µm					

BB.../BT.../BH... : Bond Ply made of epoxy resin

		<i>PET film (for protection)</i> <i>Epoxy (B-stage)</i> <i>Release paper</i>	
B	Product name		
B	B=longer shelflife; T=high Tg standard press; H=Quicklam		
15	Epoxy resin (B-stage) thickness: 15=15µm; 25=25µm; 35=35µm		