



# 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	ВВ ВТ ВН			Ероху	longer shelflife high Tg, Std. lam. Quicklam
Composite film	MHK		Polyimide	Ероху	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)



Copper Epoxy Polyimide

#### Double side copper (2s)



Copper Epoxy Polyimide Epoxy Copper

Т	Product name
Н	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)
Е	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
Н	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



PET film (for protection) Epoxy (B-stage) Release paper

В	Product name
В	B=longer shelflife; T=high Tg standard press; H=Quicklam
15	Epoxy resin (B-stage) thickness: 15=15μm; 25=25μm; 35=35μm





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