



## Flex standard layer dimensions (1 to 4 layers)

1 Layer	0,096 + 0,035Cu = <b>0,131mm</b>		+/- 0,02mm
*Coverlay SF302C 0513	PI Coverlay	12,5	µm
	adhesive	13,0	µm
Core Layer SF302 203520 SR	Base Copper	35,0	µm
	adhesive	20,0	µm
	PI basefilm	50,0	µm
**Stiffener	FR4 (NPTH) ref. 300µm		

2 Layer	0,116 + 0,08Cu = <b>0,196mm</b>		+/- 0,02mm
*Coverlay 1 SF302C 0513	PI Coverlay	12,5	µm
	adhesive	13,0	µm
	Added Copper	22,0	µm
Core Layer SF302 101820DR	Base Copper	18,0	µm
	adhesive	20,0	µm
	PI basefilm	25,0	µm
	adhesive	20,0	µm
	Base Copper	18,0	µm
	Added Copper	22,0	µm
*Coverlay 2 SF302C 0513	adhesive	13,0	µm
	PI Coverlay	12,5	µm
**Stiffener	FR4 (NPTH) ref. 300µm		

4 Layer	0,203 + 0,08Cu = <b>0,283mm</b>		+/- 0,03mm
*Coverlay 1 SF302C 0513	PI Coverlay	12,5	µm
	adhesive	13,0	µm
	Added Copper	22,0	µm
Top Layer SF302 051813SR	Base Copper	18,0	µm
	adhesive	13,0	µm
	PI basefilm	12,5	µm
Bonding Sheet 1 SF302B 13	adhesive, bonding sheet	13,0	µm
Core Layer SF302 051813DR	Base Copper	18,0	µm
	adhesive	13,0	µm
	PI basefilm	12,5	µm
	adhesive	13,0	µm
	Base Copper	18,0	µm
Bonding Sheet 1 SF302B 13	adhesive, bonding sheet	13,0	µm
Bottom Layer SF302 051813SR	PI basefilm	12,5	µm
	adhesive	13,0	µm
	Base Copper	18,0	µm
	Added Copper	22,0	µm
*Coverlay 2 SF302C 0513	adhesive	13,0	µm
	PI Coverlay	12,5	µm
**Stiffener	FR4 (NPTH) ref. 300µm		

\*Instead of 13,0µm adhesive and 12,5µm PI Coverlay there may be used yellow or green photo image able solder mask with a thickness of around 15µm in case of small solder mask openings.

\*\*Stiffeners are optional

PI: Polyimid (Kapton™)



## Flame-resistant polyimide (PI) film based flexible copper clad laminates: materials

Specification	Thickness [µm]			Single/Double sided	Copper type
	PI film	Copper foil	Adhesive		
SF302 051813SR	12,5	18	13	single	RA
SF302 051813DR	12,5	18	13	double	RA
SF302 051813SE	12,5	18	13	single	ED
SF302 051813DE	12,5	18	13	double	ED
SF302 101820SR	25,0	18	20	single	RA
SF302 101820DR	25,0	18	20	double	RA
SF302 101820SE	25,0	18	20	single	ED
SF302 101820DE	25,0	18	20	double	ED
SF302 103520SR	25,0	35	20	single	RA
SF302 103520SE	25,0	35	20	single	ED
SF302 203520SR	50,0	35	20	single	RA
SF302 203520DR	50,0	35	20	double	RA
SF302 203520SE	50,0	35	20	single	ED
SF302 203520DE	50,0	35	20	double	ED
SF302 207020SE	50,0	70	20	single	ED
SF302 303520SR	75,0	35	20	single	RA
Preferred for	1 Layer	2 Layer	4 Layer		

PI: Polyimid

RA-Kupfer: „Rolled Annealed“

ED-Kupfer: “Electrolytic Deposit“