



Kapton 20EN thin 4 layer FPC, Ultra thin double side FPC

Features

- The thinning and high dimensional stability under the high temperature situation contribute to thinning (space-saving) and enhancing performance of electronic devices including smartphones.
- High bending performance and low spring-back by reducing total thickness of FPC contribute to thinner and space-saving of electric device.

Applications

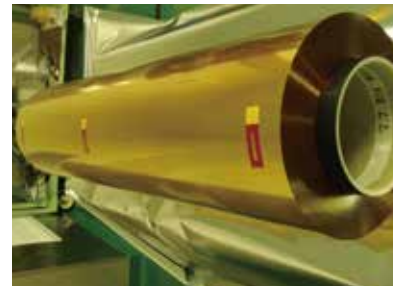
- FPC (flexible printed circuit) → space-saving, High thermal conductivity
- Heat resistant condenser • Electric wire covering materials
- Reliable heat resistant insulating materials

Ultra thin Kapton maintaining original characters of EN type such as high dimensional stability, electric insulation and chemical resistance.

Summary of Properties

	unit	Kapton®			Method
		20EN	30EN	50EN	
thickness	μm	5	7.5	12.5	
strength	MD	320	330	380	JIS C 2318
	TD	330	340	390	
elongation	MD	55	58	62	JIS C 2318
	TD	57	60	65	
modulus	MD	5.0	5.0	5.0	JIS C 2318
	TD	5.0	5.0	5.0	
heat shrinkage	MD	0.02	0.02	0.02	IPC No.2.2.4
	TD	0.01	0.01	0.01	
CTE	MD	15	15	15	50~200°C Rising temperature time : 10°C/min
	TD	13	13	13	
MIT	MD	>20000	>20000	>20000	JIS P 8115
	TD	>20000	>20000	>20000	
peel strength	D-side	18	18	18	JIS C 6471-1995
	A-side	20	20	20	

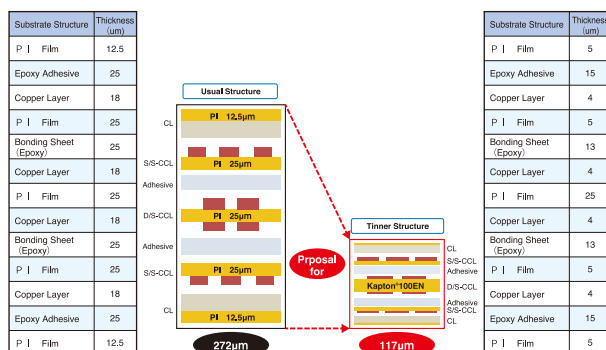
able to provide wide type (1028mm wide)



Spring Back (Single side FPC)



Space-saving by reducing total thickness (comparison of D/S four layers)



Lower spring-back by using thinner coverlay (comparison of D/S FPC)

