

# Processing guideline for *FARADFLEX*





FARADFLEX THE NEXT GENERATION OF BURIED CAPACITANCE™ MATERIAL

# Product Data

## Electrical Property

Characteristics	Condition	Unit	BC 24	BC 16	BC 12
Capacitance	1GHz	pF/in <sup>2</sup>	900	1500	2000
Dk	1GHz	N/A	4.6	4.6	4.6
Df	1GHz	N/A	0.012	0.012	0.012
Dielectric Thickness	Nominal	Micron Meter	24	16	12





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# Product Data

## Physical Property

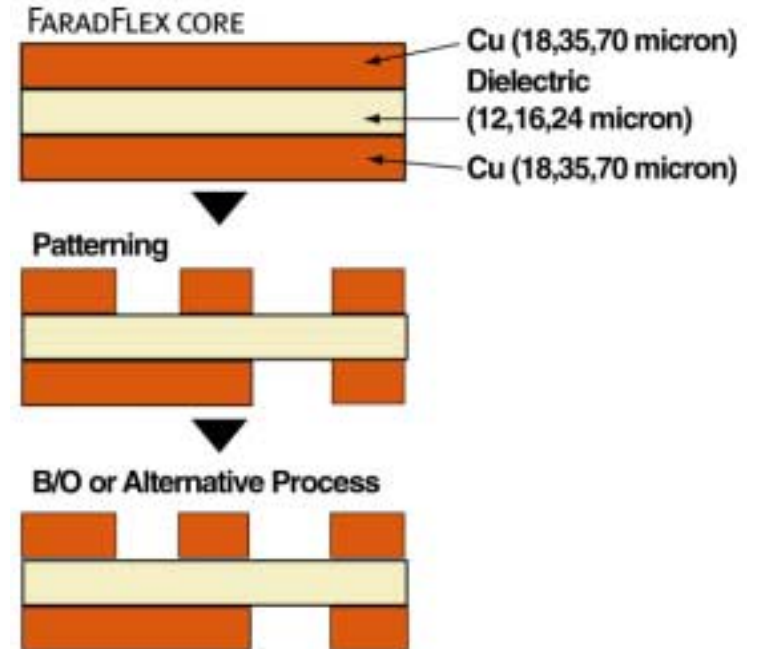
Characteristics	Condition	Unit	BC 24	BC 16	BC 12
Tg	DMA	Celsius	200	200	200
Peel Strength	As received	lb/in	>6.0	>6.0	>6.0
Young's Modules	JIS 2318	GPa	4.8	5.8	7.2
Tensile Strength	JIS 2318	MPa	180	180	180
CTE	IPC TM650	PPM	30	30	30
Breakdown	1kV/sec	V	>5000	>4000	>4000
Insulation Reliability	85C/85%/35V	hr	>1000	>1000	>1000





## Processing guideline

- 1. Pre-clean**
  - Standard process
- 2. Dry Film lamination**
  - Standard process
- 3. Expose Image**
  - Standard process
- 4. Pattern etching (Dual sides)**
  - Thin core compatible line recommended  
Ex) Thin core Schmid etching line
  - Use leader board if not confident
  - Careful Handling required
- 5. Black oxidizing or alternative oxides**
  - Thin core compatible line recommended
  - Use leader board if not confident
  - Horizontal line preferred
  - Careful Handling required





## Processing guideline

### 6. Lamination

- Standard Pre-baking, ex) 110C, 1-2hrs
- Standard process, compatible with FR-4 prepregs
- Scaling equivalent to ZBC2000

### 7. Drilling(Mechanical / Laser)

- Standard process

### 8. De-smearing

- Standard permanganate process, Atotech, Shipley etc

### 9. Plating

- Standard process

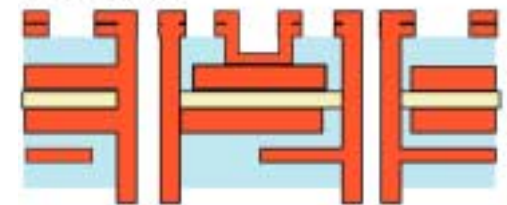
B/O OR ALTERNATIVE PROCESS



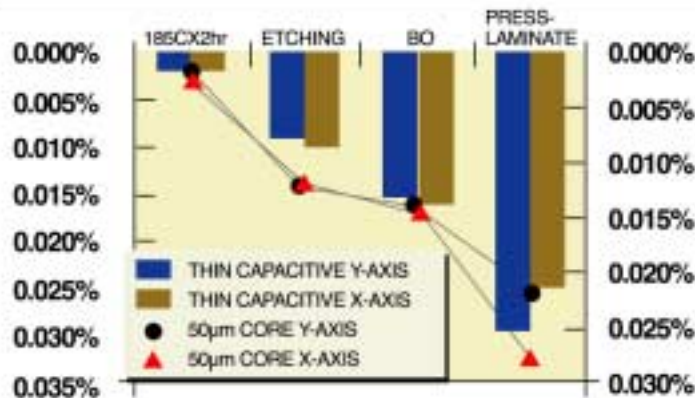
THROUGH HOLE AND MICRO VIA FORMATION



PATTERNING



DIMENSIONAL CHANGE: COMPATIBLE WITH FR-4 CORE





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## PWB examples using FARADFLEX

