Insulative teflon woven glass fabric copper-clad laminates F4T-1/2

This is a kind of circuit baseplate based on the insulative teflon plate, which is compressed with electrolytic copper foil (after oxidation treatment) on both sides, and then pressed together after high-temperature and high pressure treatment. This product is characterized by excellent electrical performance (i.e. low dielectric constant, low loss) and ideal mechanical strength, which is a good choice for baseplate of microwave PCB.

Technical Specifications

Appearance	Meet the general requirements for baseplate of microwave PCB	
Dimensions (mm)	150×150 220×160 250×250 200×300	
	For special dimensions, customized lamination is available.	
Thickness and tolerance	0.5±0.05 1±0.1 1.5±0.15 2±0.2 3±0.3	
	Plate thickness includes the copper thickness. For special dimensions, customized lamination is available.	
Mechanical properties	Angularity	0.02mm/mm for double-layer board
	Cutting/ punching	No burrs after cutting, and the minimum space between two punching holes is 0.55mm.

	property			
	Peel strength	In normal state:≥18N/cm; In the environment of constant humidity and temperature:≥6 N/cm .		
Chemical properties	The chemical etching method for PCB can be used for the circuit processing, the dielectric properties of materials are not changed.			
Electrical properties	Names	Test conditions	Unit	Specifications
	Gravity	Normal state	g/cm3	2.2 ~ 2.3
	Water absorption rate	Dip in distilled water of 20±2℃ for 24 hours.	%	≤0.01
	Operating temperature	high-low temperature chamber	℃	-100 ~ +150
	Thermal conductivity coefficient		Kcal /m .h.℃	0.4
	Coefficient of thermal expansion	Temperature rise of 96℃ per hour	×1	9.8 ~ 10×10-5
	Shrinkage factor	Two hours in boiling	%	0.0005

		water			
	Surface insulation resistance	500V DC	Normal state	M.Ω	≥1×107
			Constant humidity and temperature		≥1×105
	volume resistance	Normal state		MΩ.cm	≥1×1010
		Constant humidity and temperature			≥1×107
	Pin resistance	500V DC	Normal state	MΩ	≥1×105
			Constant humidity and temperature		≥1×105
	Surface dielectric strength	Normal state		δ=1mm(kV/mm)	≥1.5
		Constant humidity and temperature			≥1.4

	Permittivity	10GHZ	εr	2. 2.2 (±2%)
	Dielectric loss angle tangent	10GHZ	tgδ	≤1×10-3