



Copper clad laminate specifications table

Designation	ANSI Type	Type	Thickness and tolerance mm		Size and Tolerance			Copper			
					Standard Size		Tolerance				
			Thin core laminate	Rigid laminate	in	mm					
H130	FR-4	Common Tg130□	0.10±0.018	0.80±0.100	36.0×48.0	914×1220	+ 3mm -0mm	0/0			
H140			UV Blocking Tg140□	0.15±0.025				1.00±0.100	36.5×48.5	927×1232	H/O
				0.20±0.038				1.20±0.130	40.0×48.0	1016×1220	H/H
		0.25±0.038		1.50±0.130	40.5×48.5	1029×1232		1/0			
H170		UV Blocking Tg170□	0.30±0.050	1.55±0.130	41.0×49.0	1042×1245		1/1			
			0.35±0.050	1.60±0.130	42.0×48.0	1067×1220		2/0			
			0.40±0.050	2.00±0.180	42.5×48.5	1080×1232		2/2			
			0.50±0.064	2.40±0.180	43.0×49.0	1092×1245		3/0			
			0.60±0.064	3.00±0.230				3/3			
	0.71±0.064		3.20±0.230			T/T					
						T/O					

Main property

property		Test condition	unit	index	
				FR4(H130 H140 H170)	
peel strength 35 micron copper	As received	A	N/mm	≥1.4	
	After thermal stress	A		≥1.4	
surface resistivity	After moisture resistance	F	MΩ	≥10 ⁴	
	At elevated temperature	E-24/125		≥10 ³	
volume resistivity	After moisture resistance	F	MΩcm	≥10 ⁶	
	After elevated temperature	E-24/125		≥10 ³	
Dielectric breakdown(parallel laminations)		D-48/50+D-0.5/23	KV	≥40	
Permittivity at 1MHz		C-40/23/50		≤5.4	
Loss tangent at 1MHz		C-40/23/50		≤0.035	
Arc resistance		D-48/50+D-0.5/23	S	≥60	
Thermal bn stress		288□,20S		No delaminating	
		260□,20S		--	
Flexural strength	Lengthwise	A	MPa	≥415	
	Crosswise	A	MPa	≥345	
Water absorption		E-1/105+des+D-24/23	%	0.10-0.50	--
				0.50-3.20	≤0.80
		E-1/105+des	%	--	
Flammability		A&E-1/105+des		94V-0	