



SHANGHAI NANYA COPPER CLAD LAMINATE CO., LTD.

LAMINATE TESTING REPORT

CUSTOMER	LAMINATES			REPORT DATE	August 24, 2008	
TYPE	FR-4	P.O NO	LAM0805	MATERIAL NO.	_____	
SPECIFICATION	0.8mm 18/18 1092mm×1245mm Yellow Logo					
QUANTITY	100 sheets		GRADE	A	RESIN TYPE	Normal TG
LOT NO	B808257A22				Pallet NO	19
TESTING ITEM	SPECIFICATION			TESING RESULT		
1.SURFACE AND SUBSURFACE IMPERFECTION	IPC-4101B 3.8.3.1.6			ACC		
2.BOW AND TWIST	IPC-4101B 3.8.4.3			0.45%-0.55%		
3.THERMAL STRESS UNETCHED ETCHED	IPC-4101B 3.10.1.2			NO DEFECT		
4.PEEL STRENGTH AS RECEIVED AFTER THERMAL STRESS	IPC-4101B 3.9.1.1 6LB/IN 6LB/IN			8.0LB/IN~8.6LB/IN		
5.PRESSURE VESSEL THERMAL STRESS	IPC-4101B 3.12.1.3			NO DEFECT		
6.TG	DSC ≥ 130°C			134°C ~ 136°C		
7.VOLUME RESISTIVITY AFTER MOISTURE AFTER TEMPERATURE CYCLE AT ELEVATED TEMPERATURE	IPC-4101B 3.11.1.3 ≥ 10 <sup>6</sup> MΩ.CM ≥ 10 <sup>3</sup> MΩ.CM			≥ 10 <sup>7</sup> MΩ.CM ≥ 10 <sup>5</sup> MΩ.CM		
8.SURFACE RESISTIVITY AFTER MOISTURE AFTER TEMPERATURE CYCLE AT ELEVATED TEMPERATURE	IPC-4101B 3.11.1.4 ≥ 10 <sup>4</sup> MΩ ≥ 10 <sup>3</sup> MΩ			≥ 10 <sup>6</sup> MΩ ≥ 10 <sup>3</sup> MΩ		
9.DIELECTRIC BREAKDOWN ( PARALLEL LAMINATIONS )	IPC-4101B 3.11.1.6 ≥ 40KV			42		
10.DIELECTRIC CONSTANT	IPC-4101B 3.11.1.1 AT 1MHZ ≤ 5.4			4.4-4.6		
11.LOSS TANGENT	IPC-4101B 3.11.1.2 AT 1MHZ ≤ 0.035			0.027		
12.FLAMMABILITY	UL-94V0			UL-94V0		
FINAL TESTING RESULT : ACC	INSPECTOR:		APPROVED:			