

江苏星源航天材料股份有限公司

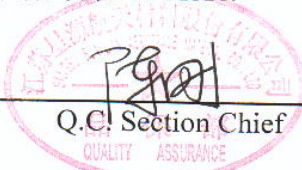
Jiangsu Sunyuan Aerospace Material Co.,LTD

FR-4覆铜板测试报告

FR-4 COPPER CLAD LAMINATE INSPECTION CERTIFICATE OF QUALITY

客户名称Customer	保加利亚		出货日期Date	2015-11-2		
品名Commodity	FR-4 V-66		数量Quantity	500	Sheets	
规格Style	1.5mm 1/1 OZ 43"×49" Yellow-LOGO		等级 Grade	A		
序号 No.	试验项目 (Test item)	试验条件 (Test condition)	单位 (Units)	指标 (Index)	测试结果 Typical Value	
1	板材厚度 Thickness	A	mm	1.5±0.13	1.40~1.56	
2	剥离强度 Peel Strength	接收态 As Received	A	kg/cm	≥1.43	1.88
		热应力后 After Thermal Stress			≥1.43	1.88
3	表面电阻 Surface Resistivity	潮湿后 After Moisture	F	MΩ	≥10 ⁴	≥10 ⁶
		高温下 At Elevated Temperature			E-24/125	≥10 ³
4	体积电阻 Volume Resistivity	潮湿后 After Moisture	F	MΩ.cm	≥10 ⁶	≥10 ⁸
		高温下 At Elevated Temperature			E-24/125	≥10 ³
5	弯曲强度 Flexural Strength	纵向 Length direction	A	N/mm ²	≥415	550
		横向 Cross direction			≥345	435
6	击穿电压Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥40	42	
7	介电常数,1MHZ,最大 Permittivity at 1 MHZ ,maximum	A	-	≤5.4	4.5	
8	介质损耗角正切, 1MHZ, 最大 Loss Tangent 1MHZ ,maximum	A	-	≤0.035	0.032	
9	耐电弧性Arc Resistance,minimum	A	S	≥60	120	
10	吸水性Moisture Absorption,maximum	E-1/105+des	%	≤0.35	0.23	
11	阻燃性Flammability	A	S	UL94 V-0	UL94 V-0	
12	尺寸稳定性Dimensional Stability	A	ppm	±300	±150	
13	弓曲和扭曲Bow And Twist	A	%	≤1.0	0.35~0.45	
14	热应力 Thermal Stress (288℃ 、10s、3次)	未蚀刻样品 Unetched	A	-	NO DEFECT	NO DEFECT
		蚀刻后的样品 Etched			NO DEFECT	NO DEFECT
15	压力容器试验 (260℃、20s) Pressure Vessel	A	-	NO DEFECT	NO DEFECT	
16	相比漏电起痕指数(CTI)	A	V	≥175	200	
17	玻璃化转变温度Tg(DSC)	A	℃	140±5	137	
18	固化因数(ΔTg)	A	℃	≤3	1	

兹证明板料符合IPC-4101C及欧盟RoHS、REACH-SVHC规范要求，UL档案号为：E214321.


 Q.C. Section Chief
 QUALITY ASSURANCE