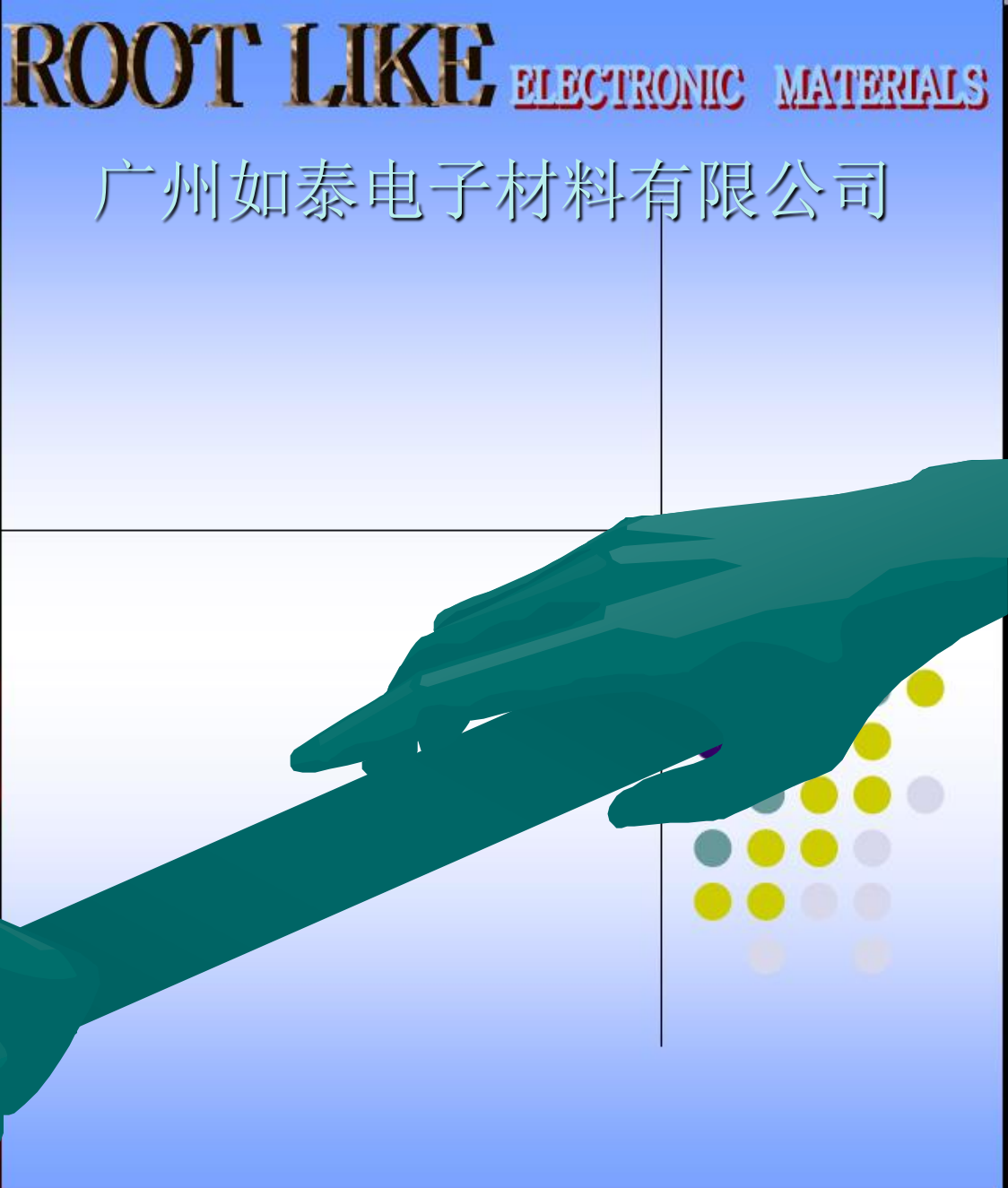


ROOT LIKE ELECTRONIC MATERIALS

广州如泰电子材料有限公司



Circuit Board TECHNOLOGIES

一、产品特征 **product characteristics**

1)双组份网版印刷油墨；

2-pack system soldermask applied by means of screen printing

2)适用于弱碱水溶液显影，高清析的解析度；

Application to be developed by mild base, excellent resolution capabilities.

3)优异的密著性、耐热性、抗化性、电气性能及物理性能；

Excellent adhesion, high heat and chemical resistance, outstanding electrical and physical properties

4)颜色多样；质量稳定。

With wide range of color selection and steady quality

二、规格及物性 Characteristics and Physical properties

1) 型号 Type	RT-100 (G、BU、W、BK)
2) 颜色 Color	绿色、蓝色、白色、黑 Green, Blue, White, Black etc.
3) 混合前粘度 (25°C) Viscosity before mixing (@ 25°C)	250 ± 30 d Pa.S (VT—04F型粘度计) 250 ± 30 dPa.S (measured with VT—04F Viscometer)
4) 主剂/硬化剂配比 Base/hardener mixture ratio	75:25
5) 混合后粘度 Viscosity after mixing	150 ± 30 d Pa.S
6) 混合后可使用时间 Pot life after mixing	24小时 24 hours
7) 耐热性 Heat resistance	288°C x 10秒 x 3次 288°C x 10 sec x 3 cycle
8) 保存期限 Shelf Life	6个月 6 months

三、耐化性 Chemical resistance

化学药性 Chemical properties	浸泡时间 Dip Time	结 果 Result
异丙醇75% 75% Isopropyl Alcohol	46°C 2 mins.	正 常 Normal
盐酸/硫酸10% 10% hydrochloric acid/sulphuric acid	室温 30分钟 room temperature, 30 mins	正 常 Normal
氢氧化钠10% 10% sodium hydroxide	室温 30分钟 room temperature, 30 mins	正 常 Normal
1.1.1三氯乙烷 1.1.1 trichloroethane	室温 30分钟 room temperature, 30 mins	正 常 Normal
乙醇胺 ethanolamine	室温 30分钟 room temperature, 30 mins	正 常 Normal

四、物理特性 Physical and mechanical properties

项目 Item	性能properties	试验条件 Test Method
铅笔硬度 Pencil hardness	≥6H	IPC-SM-840B3.5.1.2.
耐磨性 Abrasive resistance	正常 passed	IPC-SM-840B3.5.1.1.
密著性 Adhension	正常 Passed	IPC-SM-840B3.5.2.
抗燃性 Flame-retardant	UL—94V—0	IPC-SM-840B3.6.4.

五、电器特性 Electrical properties

项目 Item	性能 Properties	试验条件 Test Method
绝缘破坏电压 Breakdown voltage	1000V Dc/mil	IPC-SM 840B3.8.1.
体积抵抗 Volume resistance	$1 \times 10^{12} \Omega$	ASTM D-257
表面抵抗 Surface resistance	$1 \times 10^{12} \Omega$	ASTM D-257 IPC-SM 840B3.8.2.
抗绝缘 insulation resistance	$1 \times 10^{12} \Omega$ $1 \times 10^{12} \Omega$ $1 \times 10^{12} \Omega$	Class1 35°C 90%RH 4 days Class2 50°C 90%RH 7days Class3 25-65°C 90%RH 7days/cycle
透电正接 Dielectric Loss Tangent	0.02	JIS C6481 1MHz

六、工艺流程及条件 Process and operation parameters

流程 Process		条件 Operation Parameters
基板表面前处理 Board Pretreatment		酸处理和机械刷磨程序:火山灰磨板效果更佳. Acid Clean and abrasive brush.: pumice scrub is better
主剂与硬化剂的混合 Base/hardener mixing		手或机搅,须搅拌充分,混合均匀. Mix the material by hand or by mechanical mixer thoroughly .
油墨静置 Hold the material		≥ 15分钟 ≥ 15mins.
单面丝印 Single-side screen print	第一面丝印及静置 Coat Side A and hold	36-51T网目 丝印后静置≥ 15分钟 Using 36-51 T mesh, Hold ≥ 15 minutes after screen printing
	预干燥 pre-dry	75 °C 15-20分钟 15-20 minutes at 75°C
	第二面丝印及静置 Coat Side B and hold	36-51网目 丝印后静置≥ 15分钟 Using 36-51 T mesh, Hold ≥ 15 minutes after screen printing
	预干燥 Pre-dry	75 °C 30-40分钟 30-40 minutes at 75°C
双面丝印 Double-side Screen Print	印刷 Print	36-51T网目 丝印后静置≥ 15分钟 Using 36-51 T mesh , Hold ≥ 15 minutes after screen printing
	预干燥 Pre-dry	75 °C 40-45 分钟 40-45 minutes at 75°C
曝光 Exposure		能量: 300-600mj/cm ² , 曝光尺: 10-13级 (21级Stuffer曝光尺) 300-600j/cm ² , 10-13 step with a 21 step Stouffer Step Tablet.
静置 Hold		≥ 15分钟 ≥ 15mins.
显影 Development		1±0.2%碳酸钠水溶液, 温度: 30°C, 时间: 40-60秒, 1±0.2% sodium carbonate monohydrate solution at 30°C with 45-55 sec.
后烤 Curing	正常丝印板 Normal screen print board	150 °C,60分钟 60 minutes at 150°C
	塞孔板 via filling board	70 °C 45分钟 / 110 °C45分钟 / 150 °C60分钟 45 minutes at 70°C/ 45 minutes at 110°C/ 60 minutes at 150°C

七、操作注意事项 Special Note in processing

- 1 须在温度 $22^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 、湿度40-60%的无尘室内进行。印刷作业须在无UV灯光照射下进行。

Should be processed in clean room at $22\pm 2^{\circ}\text{C}$ with relative humidity between 40-60%. Light with UV output should be avoided.
- 2 油墨厚度以10-25 μm 为宜。膜较厚或较薄时，须调整正常生产参数，否则会影响其正常特性。

The optimum mask thickness is 10-25 μm . Parameters adjustment should be made on condition that the mask thickness is too heavy or thin in order to avoid the influence to the general characteristics.
- 3 使用前加入20ml的油墨专用稀释剂,应将主剂和硬化剂按比例混合充分搅拌均匀。

Add 20ml special thinner before using, mix and stir the base and hardener with the right ratio thoroughly
- 4 储存于阴凉干燥处,常温20-25 $^{\circ}\text{C}$ 下保质期为6个月。

In a cool, dry place, with the normal temperature 20-25 $^{\circ}\text{C}$, it can be stored for 6 months.
- 5 以上数据来源于实验室,实际使用时,仅供参考.由于工艺流程参数不同,请根据实际条件进行调试至最佳参数。

This information is based on our experience, it can be treated as reference in processing. Since the operation conditions is difference, you can adjust the parameters to the optimum data according to the practice conditions .