产品名称 Product Name: 类 PC 光敏树脂

产品特性 Product features

类 PC 光敏树脂：具有坚韧性好，悬臂冲击强度极佳，耐高温，高强度，高硬度，可攻丝打孔，模型表面耐磨耐刮檫，具有优异的抗弯折，断裂伸长率高，打印易成型，低气味，打印精细度好，耐候性好，储存性能稳定。

颜色：黑色，深灰色

主要应用 Main applications:

适用于模型打印：工程结构件，非标定制零件，手办玩具等。

注意事项 Points for attention:

性 能 Properties	测试标准 Test Method	测试条件 Test Condition	国际单位 S.I. Units	典型值 S.I.[1] Typical Values
机械性能 Mechanical				
拉伸强度(Z) Tensile Strength	ISO 527/2	50 mm/min	MPa	31
断裂伸长率(Z) Elongation at break	ISO 527/2	50 mm/min	%	88
弯曲强度(Z) Flexural Strength	ISO 178	10mm/min	MPa	46
弯曲模量(Z) Flexural Modulus	ISO 178	10mm/min	MPa	1058
悬臂梁缺口冲击强度(Z) Izod Impact Strength of Notched Specimen（中间横线力学条）	ISO 180	23℃	J/m	399
悬臂梁无缺口冲击强度(Z) Izod Impact Strength of Unnotched Specimen	ISO 180	23℃	J/m	880
邵氏硬度 Shore Hardness	ISO 868	23℃	HD	79
热 性 能 Thermal				
热变形温度(Z) Heat Distortion (HDT)	ISO 75	0.45 MPa	℃	45.2
玻璃化转变温度 Glass Transition (Tg)	ISO 11357-2	10 ℃/min	℃	/
熔点温度 Melting Temperature	ISO 11357-1	10 ℃/min	℃	/
分解温度@5%Decomposition Temp.	ISO 11358	20 ℃/min	℃	/
体积收缩率 Mold Shrinkage	ISO 294	23℃	%	/
热膨胀系数 Coefficient of Thermal Exp.	ISO 11359-2	/	μm（m·℃）	/
树脂基本物性 Basic physical properties of resin				
液体密度 Liquid density （g/cm³）	ISO 1675	23℃	g/cm³	1.0198
固体密度 Solid density （g/cm³）	ISO 1183	23℃	g/cm³	1.1356
树脂粘度 Resin viscosity （mPa.s）	ISO 2555	25℃	mPa.s	2500-3000
其 他 Others				
固化波长 Curing wavelength （nm）		365-405		
储存条件 Storage conditions		15-35℃， ＜60%RH 遮光密封储存		
有效期 Validity period		2 年		

清洗方式 Cleaning method	打印好的模型酒精清洗，如有较多细节建议再使用超声波加酒精清洗 7-10 分钟，亦可用酒精手动刷洗。
后固化方式 Post-curing method	清洗结束后，使用二次固化箱固化 5-10min

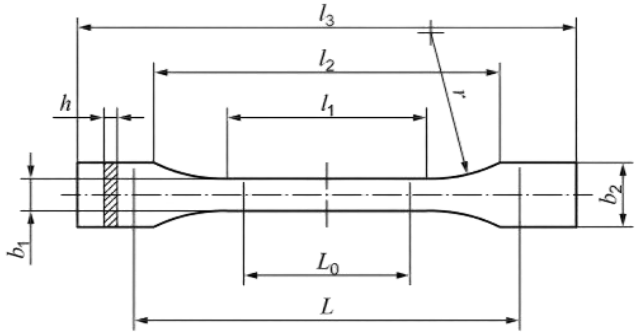
[1] 典型值是指实验室平均数据，仅用于使用时的参考，不作为产品的标准，不同打印机打印有区别。

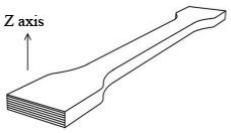
建议打印参数 Recommended Printing Parameters

项　目 Item	参　数 Parameters
打印最佳环境温度 Print optimum ambient temperature（℃）	25—30℃/＜60%RH
推荐打印层厚 Recommended print layer thickness（mm）	0.05mm
底层数 Number of bottom layers	5-10
底层曝光时间 Bottom exposure time（s）	彩屏机 25-40 s；黑白机 25-45 s
层曝光时间 Layer exposure time（s）	3.8-4.8
抬升高度 Lifting height（mm）	6-12
抬升速度 Lifting speed（mm/min）	60-180
回程/下降速度 Retract/descent speed（mm/min）	60-180
灭灯延时时间 Light-off delay time（s）	0.5-1

以上数值仅供打印机参考使用，可根据不同机型、不同模型以及产品要求，对上述工艺做适当调整

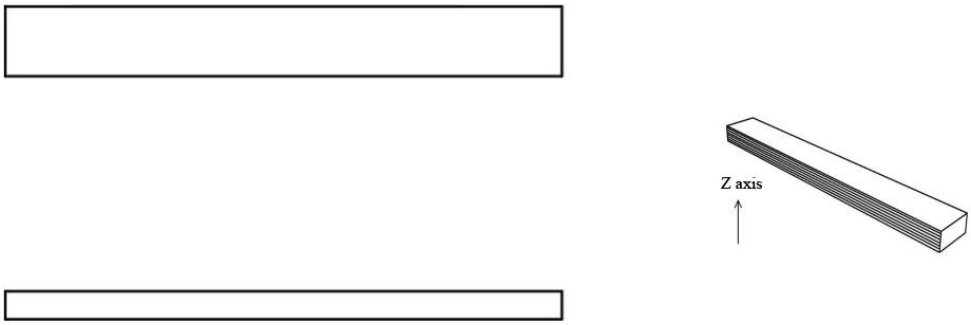
拉伸测试 TENSILE TESTING SPECIMEN



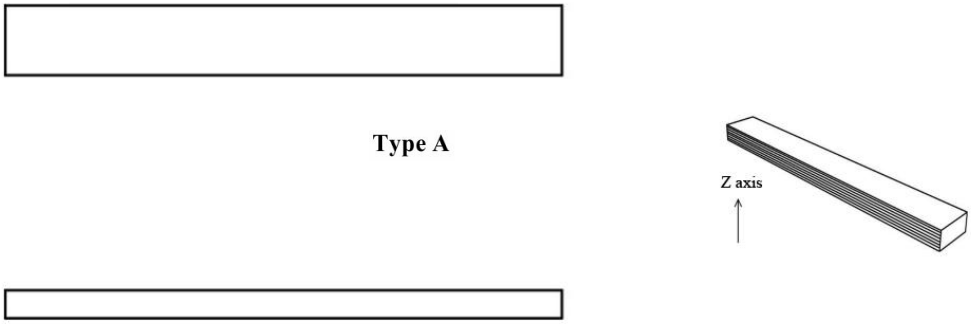


L_0=25mm

弯曲测试 FLEXURAL TESTING SPECIMEN



冲击测试 IMPACT TESTING SPECIMEN



安全及处理注意事项：

客户可向当地的三绿办事处索取本产品的材料安全数据表（SDS）。客户从 SDS 中可得到材料处理、安全和弃置方面的资料，以及当地适用的健康和安全规定的要求。下面所述只是一般注意事项，仅适用于所提供的树脂。用于塑料成型的各类添加剂和加工助剂，以及用于二次加工工序的其它材料有其自身的安全要求，因此必须分别去了解。

本产品禁止食用，不可进入眼睛，需远离儿童及孕妇。如不慎接触眼睛或皮肤，请尽快使用大量清水冲洗，有不适请及时就医。

-操作环境控制-

・按正确操作规程要求，打印加工区应有良好的通风。在大多数情况下，一般良好的通风设备便已足够。当有需要时，使用局部抽气通风方法；

・最佳打印条件：环境温度 25℃-30℃，环境湿度＜60%。低温会造成粘度变高，可能降低打印成功率。低于 20℃时建议将树脂进行预热，提升打印效果。温度过高会造成树脂色素沉降加剧，影响打印；

・建议在避光区域打印，未固化的树脂会在直射阳光下会发生固化。

-使用规范-

・使用前请将树脂摇匀，请佩戴手套口罩。打印前需等待树脂表面气泡消完再进行操作。若树脂槽底部出现沉淀，可用塑料刮刀轻轻搅拌，或倒回原瓶充分摇匀后再使用。

・打印完成后，请勿将未固化的打印件长时间浸泡在清洗剂中，否则可能影响树脂性能。树脂使用完后，及时密封。废弃物的处理按当地环境法规规定要求处置。

-储存要求-

・密封保存，避免灰尘过多的环境或者受潮；
・遮光保存，避免光线直射，阳光中含大量紫外线，会固化光敏树脂；最佳储存条件：建议在 15℃-35℃的环境温度，＜60%环境湿度下遮光保存。
公司建议用户事先调查自己产品的最终用途，以保证能正确使用三绿公司的产品。为保证三绿公司的产品不被误用或错用，建议与三绿公司研发部联系，或与公司市场部联系。材料性能可能因打印机型号、固化方式及测试仪器的不同而存在差异，请以本产品的安全说明书及认证报告（如 TDS）为准。如遇任何问题，欢迎随时与我们联系。

Safety and Handling Precautions

A Material Safety Data Sheet (SDS) for this product is available from your local Sunlu office.

The SDS provides customers with information on material handling, safety and disposal, as well as the requirements of applicable local health and safety regulations. The following are general precautions and apply only to the resins supplied. The various additives and processing aids used in plastics moulding and other materials used in secondary processes have their own safety requirements and must be understood separately.

This product is not for consumption and must not come into contact with eyes. Keep it away from children and pregnant women. In case of accidental contact with eyes or skin, rinse thoroughly with plenty of clean water immediately. Please seek medical attention promptly if you feel unwell.

-Operational Environment Control-

· Ensure adequate ventilation in the printing area in accordance with proper operating procedures. Under most circumstances, standard ventilation equipment is sufficient. Use local exhaust ventilation when necessary.

· Optimal printing conditions: ambient temperature 25℃-30℃, relative humidity < 60%. Low temperatures will increase viscosity, which may reduce printing success rate. It is recommended to preheat the resin when the temperature is below 20℃ to improve printing results. Excessively high temperatures will exacerbate pigment sedimentation in the resin, affecting printing quality.

· It is recommended to print in a light-protected area. Uncured resin will cure when exposed to direct sunlight.

-Usage Specifications-

· Shake the resin thoroughly before use, and wear gloves and a mask. Wait for bubbles on the resin surface to dissipate completely before starting printing. If sediment accumulates at the bottom of the resin vat, gently stir it with a plastic spatula, or pour it back into the original bottle and shake thoroughly before reuse.

· After printing, do not soak uncured printed parts in cleaning agent for an extended period, as this may affect the resin's performance. Seal the resin container promptly after use. Dispose of waste in compliance with local environmental regulations.

-Storage Requirements-

· Store the resin in a sealed container, and keep it away from dusty or damp places (these can lower print quality).

· Store in a light-shielded environment and avoid direct light exposure. Sunlight contains a large amount of ultraviolet rays, which will cure the photopolymer resin.Optimal storage conditions: It is recommended to store the resin in a light-shielded environment with an ambient temperature of 15℃-35℃ and a relative humidity of < 60%.

Users are advised to investigate the final use of their product beforehand to ensure the correct use of Sunlu products. To prevent misuse or incorrect use of Sunlu products, it is advisable to contact the Sunlu R&D department or the marketing department.The material performance may vary depending on the printer model, curing method, and testing equipment. Please refer to the product's Safety Data Sheet (SDS) and certification reports (e.g., TDS) for the authoritative specifications. Should you encounter any issues, please feel free to contact us at any time.

注意：由于使用条件和适用法律可能因地因时而异，客户有责任确定本文件里的产品和产品信息是否适合客户使用，并确保自己的工作场地和处理产品的方式符合可适用的法律和其它政府法规。三绿公司对本文件信息不承担任何责任与义务，也未提供任何保证。在本文件下关于产品的可售性或某一特殊用途的可适用性的所有默示保证在此明确地予以排除。

Note: Due to variations in usage conditions and applicable laws by location and time, customers are responsible for determining whether the products and product information in this document are suitable for their use. Customers should ensure that their workspaces and handling methods comply with applicable laws and other government regulations. Sunlu assumes no responsibility or liability for the information in this document and does not provide any warranties. All implied warranties of merchantability or fitness for a particular purpose under this document are hereby expressly excluded.

修订履历						
版本	页码	修订日期	生效日期	主要修订内容	修订部门	修订人