

@SUN易生[®]

Introduction

eResin-PLA Pro

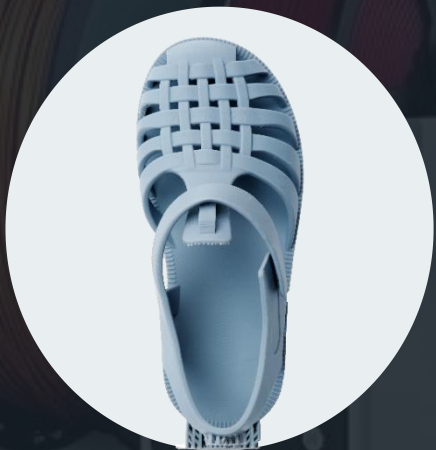


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INTRODUCTION OF eResin-PLA Pro

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eResin-PLA Pro PRECAUTIONS FOR USE



Applicable Field

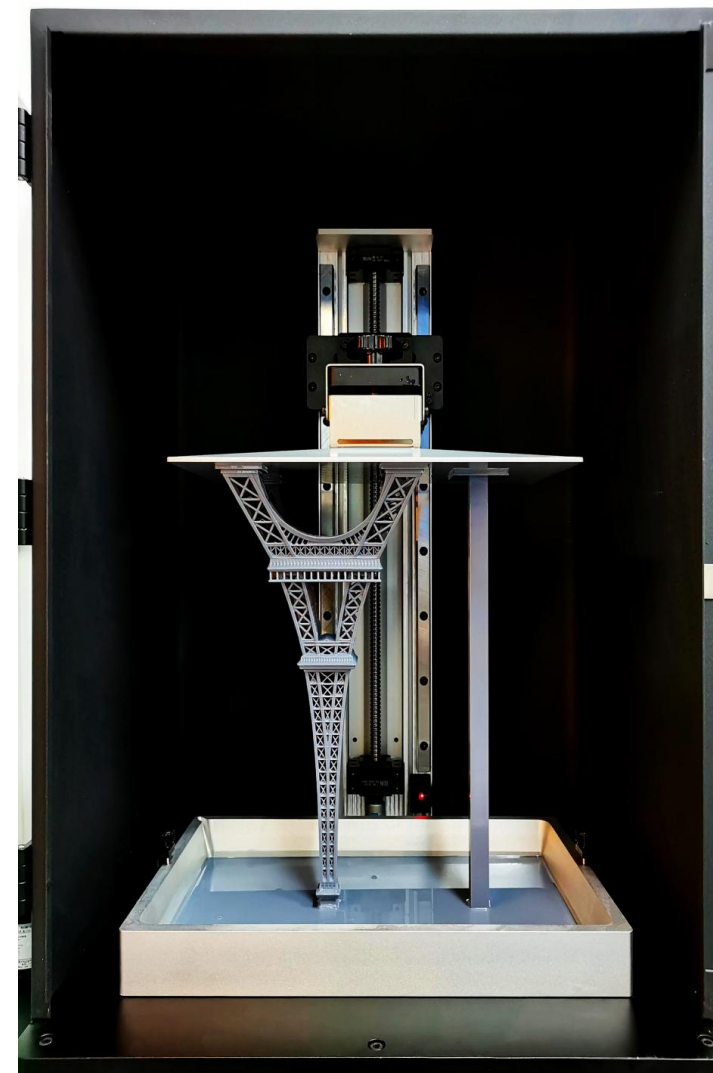
This product has excellent resolution and is suitable for making props and dental models that require high resolution.

Features

- Plant base, environment friendly;
- High Precision and resolution;
- Good bending and tensile properties;
- Suitable for small and big size mono printer

eResin-PLA

- eResin-PLA Pro is designed for monochrome screen LCD printers and large size screen (normally larger than 6 inches) LCD printer. The exposure time for eResin-PLA Pro in monochrome screen LCD printers can be as low as 2 seconds.
- Also can be used for small size color screen (normally smaller than 6 inches) LCD printers.
- The base material comes from plant extract PLA
- eSUN produces the eResin-PLA Pro base component in house. It makes the product be in more reliable and stable quality.



eResin-PLA Pro Performance Parameters After Curing



MEASUREMENT	TEST METHOD	eResin-PLA Pro (VALUE)
Hardness/Shore D	ASTM D 2240	80
Tensile strength/MPa	ASTM D 638	37.29
Elongation at break/%	ASTM D 638	27.77
Flextural Strength/MPa	ASTM D 790	48.01
Impact Strength/J/m	ASTM D256	35.98
Proportion (H2O, 25°C)	GB/T 6750-1986	1.189



** Material properties are related to printing conditions and post-processing methods*

eResin-PLA Pro Physical Properties

MEASUREMENT	TEST METHOD	eResin-PLA Pro (VALUE)
Appearance	/	Grey Liquid
Odor	/	Ester-Like Smell
Elongation at break/%	ASTM D 638	27.77
Flextural Strength/MPa	ASTM D 790	48.01
Impact Strength/J/m	ASTM D256	35.98
Proportion (H2O, 25°C)	GB/T 6750-1986	1.189

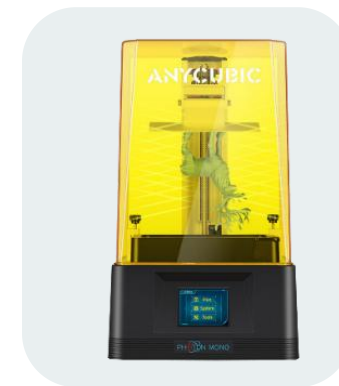


** Material properties are related to printing conditions and post-processing methods*

eResin-PLA Pro Printing parameters



Printing Parameters					
Representative Printer	AnyCubic Photon MONO X	Nova Bene 4	Nova Bene 4 MONO	Phrozen Sonic Mini	eSUN LCD13.3 Mono
Layer Height	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm
Normal Exposure Time	1.5s	6.5s	2.2s	3s	2.5s
Bottom Exposure Time	40s	30s	25s	30s	40s



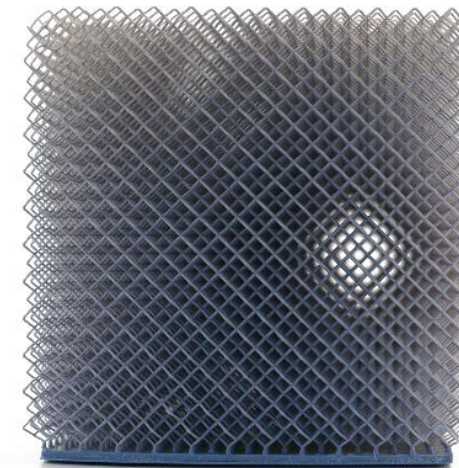
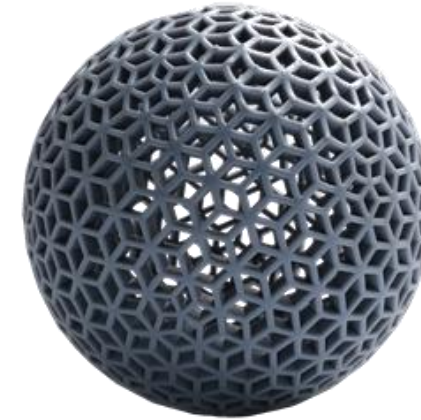
Conventional Resin VS eResin-PLA Pro



	eResin-PLA, Standard Resin, Water Washable Resin, Hard & Tough Resin	eResin-PLA Pro	
	Small size color screen	Small size color screen	Monochrome or large size screen
Normal Exposure Time	4 to 9 seconds	5 to 14 seconds	2 to 4 seconds
Number of Bottom Layer	3-5 Layers		
Bottom layer exposure time	30-60 seconds	60-120 seconds	25-60 seconds
Lift Distance	5 to 6 mm or higher	5 to 6 mm or higher	8 to 12 mm or higher
Lifting Speed	90-150mm/s	90-150mm/s	50-90mm/s
Retract Speed	150-200mm/s		

Color Screen VS Mono Screen

Screen type	Conventional Color Screen	Mono Screen
Single Layer Exposure Time	6s	As low as 1.8s
Transmissivity	1%	6%
Printing speed	10-15mm/h	40-60mm/h
Service Life	Hundreds of hours	Thousands of hours



eResin-PLA Pro Various parameters

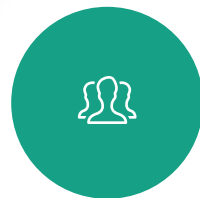


Compatibility



Fully compatible with monochrome screen and color screen LCD printers

Color



Gray, Black, Beige, White

Package



0.5KG/1KG
Regular Packaging

Wavelength

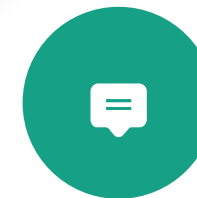


395-405nm

Temperature ExposureTime



18-35°C



The bottom layer is 20-30s,
Common layer is 1-8s

Precautions For Use






Printer requirements: can adjust lifting height and speed



Applicable wavelength: 395-405nm



Printing temperature: 18-35°C

-  After the model is formed, use the shovel knife to shovel lightly. Prevent the excessive force makes model brittle break.
-  Material properties will vary by printer, post-curing method and testing method.
-  Suggestions for post-curing:
 - (1) Mercury lamp /LED light strength 5-10mW/m², posting time not over 15min (self-adjust);*
 - (2) Exposure time under sunlight (in summer) should within 0.5 hours;*
 - (3) Do not exposure long time and closely under high power UV LED Light.*

Finished Product

