SIRAYA Tech

User Guide for Blu and Blu Clear V1 / V2

[For other resin user guides, please visit https://siraya.tech support section]

Blu is developed to be a strong resin that has high resolution, precision, and is easy to print. It is tough and hard enough for making functional parts yet easy to print and clean for general use.
And it should not stink up user's work environment

Due to higher polymer content for its outstanding mechanical properties, the ideal printing condition for Blu is over 25C.
If user can maintain a resin temperature of 30C, the printing time could be further reduced

Check out recommended support settings if you have print failures

Exposure For Blu and Blu Clear V2 (Not Blu Clear V1)

	Recommended	Resin Temperture 25-35C			Room temperature 20-28C			
Printer	Layer Height	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Note
Photon	50um	11-12 (s)	4	60 s	12-13 (s)	6	90 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Photon-S	50um	10 (s)	4	60 s	11 (s)	6	75 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
LD-002R	50um	10 (s)	4	40 s	11 (s)	4	50 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
EPA X1	50um	9 (s)	4	45 s	9 (s)	6	75 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
EPA X1	100um	12 (s)	4	75 s	12 (s)	6	90 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Elegoo Mars	50um	11 (s)	4	50 s	11 (s)	6	60 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Shuffle	50um				9(s)	5	75 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Shuffle XL	50um				12(s)	5	75 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
D7	50um				9(s)	5	75 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Inkspire	50um	11s	4	50 s	12-13 (s)	6	90 s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Moonray	50um	use settigs for nextdent Ortho rigid			use settigs for nextdent Ortho rigid			
Sonic Mini	50um	4s	5	20s	4s	5	20s	10mm lift distance help, lift speed 40mm/min, with support facing side surface
Slash		Siraya on the Slash is better than anything I've tried...and I've tried 5-6 other resins on the Slash. Example from left to right are 100um, 75um, and 50um. The one I'm holding is 50um. 100um 5 sec 75um 4 sec 50um 3.5 sec 25um 2.8 sec 10um 2.5 sec - LED power 250 (default) - First layer for all 12sec/ first 3 layers (default amount). - Slow setting for Lift speed - 8mm lift height is safest and allow time resin to flow back (they only allow you to pick from 3,8, and 15mm height...which sucks...I'd like 6mm if I could. - Cooldown between layers on auto (smaller prints i do 2sec to speed things up) - Supports point(head) size no less than 1mm, but 1.5 is recommended with 2mm shaft.						

Exposure For Blu Clear V1

	Recommended	Resin Temperture 25-35C			Room temperature 20-28C			
Printer	Layer Height	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Note

Photon	50um	14 (s)	4	65 s	14 (s)	6	90 s	
Photon-S	50um	11 (s)	4	65 s	11 (s)	6	80 s	10mm lift distance help with support facing side su
EPA X1	50um	10 (s)	4	50 s	10 (s)	6	65 s	10mm lift distance help with support facing side su
EPA X1	100um	14 (s)	4	75 s	14 (s)	6	90 s	10mm lift distance help with support facing side su
Elegoo Mars	50um	11 (s)	4	50 s	11 (s)	6	60 s	10mm lift distance help with support facing side surface
Shuffle	50um				10(s)	5	75 s	10mm lift distance help with support facing side surface
Shuffle XL	50um				14(s)	5	75 s	10mm lift distance help with support facing side surface
D7	50um				10(s)	5	75 s	10mm lift distance help with support facing side surface
Inkspire	50um	13s	4	50 s	13 (s)	6	90 s	
Moonray	50um	use settigs for nextdent Ortho rigid			use settigs for nextdent Ortho rigid			
Slash		Siraya on the Slash is better than anything I've tried...and I've tried 5-6 other resins on the Slash. Example from left to right are 100um, 75um, and 50um. The one I'm holding is 50um. 100um 5.5 sec 75um 4.4 sec 50um 3.9 sec 25um 3 sec 10um 2.8 sec - LED power 250 (default) - First layer for all 14sec/ first 3 layers (default amount). - Slow setting for Lift speed - 8mm lift height is safest and allow time resin to flow back (they only allow you to pick from 3,8, and 15mm height...which sucks...I'd like 6mm if I could. - Cooldown between layers on auto (smaller prints i do 2sec to speed things up) - Supports point(head) size no less than 1mm, but 1.5 is recommended with 2mm shaft.						

Before Printing

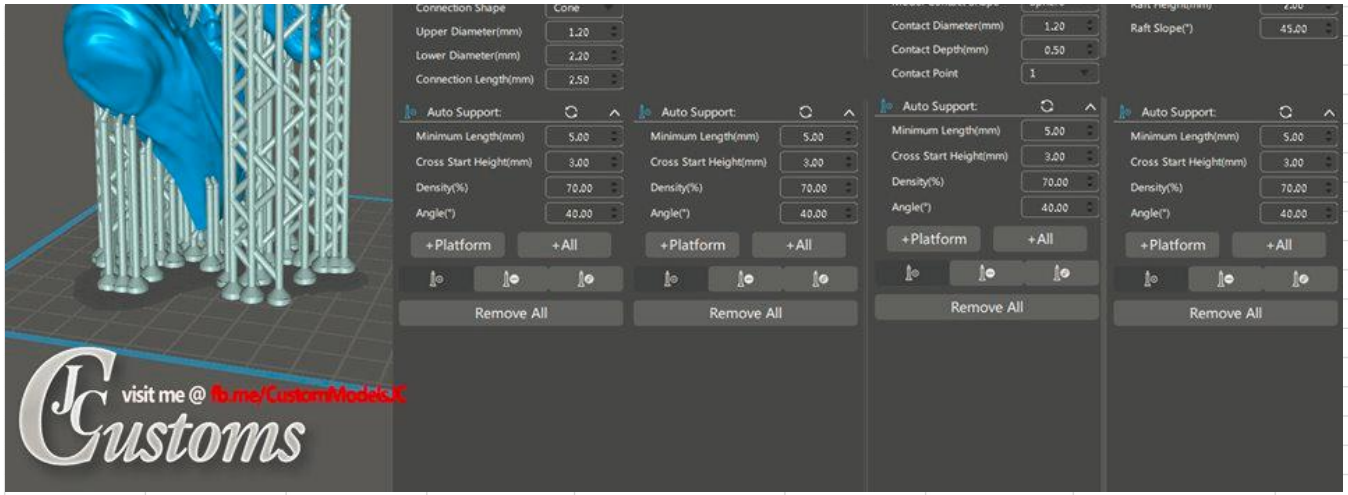
It is a good practice to mix resin and expose the bottom of the vat to air before printing. This replenish oxygen in the vat and helps reduce peel force.

It would also ensure print consistency if user can get the initial resin temperature above 25 and keep the environmental temperature above 20 C

Recommend best support settings:

Make sure the support tip diameter is 1.2mm for larger prints with a depth of 0.5mm. See more full settings recommended

https://www.facebook.com/groups/sirayatech/permalink/290257771885611/



It is best to use island style base like below left, not the raft style on the right. If you have problem keeping first layer on, make sure you level again to minimize gap between build plate and LCD screen

Cleaning:

Use a painter brush (or any brush made with hair) remove excess resins on the printed part with Use 95% concentrated Ethanol (preferred) or IPA to clean. Some form of methnol should work but make sure it does not contain acetone.

Do not submerge the parts in alcohol for more than 30 seconds. After 2-3 minutes of cleaning action, remove alcohol with a hair dryer or air blower. For complex part with lots cavities, it may be a good idea to clean/dry multiple times.

User can check by touching the dryed surface of the part to see if it is still sticky. If the dryed surface is still sticky, wash some more and dry again.

Post Curing:

Blu reached its optimal strength when the printed part is post-cured with UV after cleaned. Use 395-405nm UV light and cure for about 15 minutes.

Make sure resin is completely cleaned off and there is not alcohol left (it needs to be dry) on the print before curing.

Curing by submerging object in water will significantly increase curing efficiency

Mechanical Properties

Shore D 85

Tensile Strength 44Mpa

Young's Modulus 1500Mpa

Elongation At Break: 25%

Heat Deflection Temperature: 75C

Shrinkage 6% by volume

msds

https://drive.google.com/open?id=1QA9HKiQD-9b4onVCs1W_MjBiT940yGOk