SIRAYA Tech

Dry prints completely before curing! Use Hairdryer to speed up the process. Do not cure under sun with a wet print!

User Guide for Build

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

Build is an affordable, easy to print and, non-brittle enginering resin ideal for prints that require high precision, no warping and tappable
It is an a good balance between hardness, resolution and a bit flexible to make it ideal for projects.

We recommend you print Build over 20 C

Please download profiles base for Elegoo, Anycubic, Phrozen, Peopoly, EPAX, Creality

https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing

Best print with recommended support setting, see below

Exposure

Recommended		Resin Temperture 25-35C			Room temperature 20-25C			
Printer	Layer Height	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Exposure (s)	# of Initial Layers	Exposure for Init Layers	Note
Photon	50um	12 (s)	4	60 s	12(s)	6	60 s	
Peopoly Phenom	50um	13.5s	6	65 s	13.5s	6	65 s	see below for detail settings
EPA X1	50um	9.5 (s)	4	50 s	9.5 (s)	4	50 s	
EPA X1	100um	12 (s)	4	75 s	12 (s)	6	90 s	
Shuffle	50um				7.5(s)	5	60 s	
Shuffle XL	50um				11(s)	5	75 s	
Phrozen Transform	50um				8(s)	5	60 s	*see additional info below
D7	50um				8(s)	5	60 s	
Inkspire	50um				11 (s)	6	75 s	Inkspire does not specify its light output, one user told us it is very clos
Photon S	50um	9.5s	5	65s	9.5s	5	65s	
Mars	50um	9.5 (s)	4	50 s	9.5 (s)	4	50 s	
Mars Pro	50um	6.5s	4	40s	6.5s	4	40s	
SL1	50um	6s	10	40 s	7s	10	45 s	
Photon Mono	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Photon Mono X	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Mars 2 Pro	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Mars 3	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Saturn	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Sonic Mini 4K	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Might 4K	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Mega 8K	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							
Peopoly Printers	Where to find printer profiles: https://drive.google.com/drive/folders/1eCz4_dc0fT-jfBLp4L9mKYebY90lfHHO?usp=sharing							

Before Printing

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

Recommend best support settings:

We recommend medium preset support setting in chitubox for smaller prints. Heavy support for large prints on large priners
If you don't use chitubox, at least download a copy and see the detail settings for each preset and copy them over to your software of choice

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:

Build reached its optimal strength when the printed part is post-cured with UV after cleaned. Use 395-405nm UV light and cure for about 1-2 minutes.

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

It is important to dry the print made by Build completely before post curing. There is no need to use the "submerge in water" technique. If you decided to do so, make sure dry the print as soon as you are done curing using hot air / dehydrator

Mechanical Properties

Shore Hardness (D)	73D
Tensile Stress at Break (MPa)	33
IZOD Impact (Notched, J/m)	27
HDT at 0.455 MPa (°C)	68
Elongation at Break (%)	8
Young's Modulus (MPa)	850

MSDS

https://drive.google.com/file/d/1nn_BFdppXtCngaLZTlXL6l7Y8I7Bmmzk/view?usp=sharing

TDS

https://drive.google.com/file/d/1BwUNGdiv5DE_r0xTPJs-xIbd2-2avMXO/view?usp=drive_link