APPLYLABWORK PRINTING TIPS

MSLA-Modeling – Gray (MMD-R001GY)

Check

- Vat and LCD screen are clean
- Shake well before pouring, 60 sec
- Vat & platform are tighten properly
- Do Not overfill vat

Setting recommendation Chart

				Exposure
		Normal	Bottom	Time (sec)
		Exposure	(Burn-In)	for Bottom
Printer	Layer Thickness	Time (sec)	Layers	(Burn-In)
Photon	50 μm	10	8	45
Photon	100 μm	15	10	50
Photon S	50 μm	5	8	40
Photon S	100 μm	8	10	45
Mono X	50 μm	1.5	3	30
Mono X	100 μm	2.4	3	30
Shuffle	50 μm	10	8	40
Shuffle	100 μm	15	10	45
Shuffle XL	50 μm	8	8	40
Shuffle XL	100 μm	12	10	45
Sonic	50 μm	2.5	8	30
Sonic	100 μm	4	10	30
Sonic Mini	50 μm	4	6	30
Sonic Mini	100 μm	6	6	30
Sonic Mighty 4K	50 μm	3	10	30
Sonic Mighty 4K	100 μm	5	10	30
Sonic Mega 8K	50 μm	3.8	8	35
Sonic Mega 8K	100 μm	5.4	8	40
Transform Fast	50 μm	3.2	10	60
Transform Fast	100 μm	4.5	10	60
Elegoo Mars 2 Pro	50 μm	2.8	5	25
Elegoo Mars 2 Pro	100 mm	3.8	5	30
Elegoo Mars 3	50 μm	2.8	5	25
Elegoo Mars 3	100 μm	3.8	5	30

Detail setting of various printers, please refer to ALW <u>LCD/LED Settings Worksheet</u>. Each printer is unique, light intensity varies from printer to printer eventhough they are the same model and make. Please adjust normol exposure time from our recommended setting ±3 (±0.5 for monochrome LCD) second for your printer and print geometry.

For size calibration, please download <u>XYZ</u> caalibration cube stl file.

Washing

Submerge print in clean IPA for up to 5 minutes, gently shake-off / blow-off excess IPA, set print in a shaded airy place to dry before curing. (extended period in IPA causes

deformation). Dried print might be a little tacky to touch

Curing

Post-curing required for optimal material performance: Light wavelength: 405 nm Total light energy per unit area required on the print: 162,000 mJ/cm²

Example:

Light power on the print = 40mW/cm^2 , (higher power per unit area shortens curing time) 162,000 mJ / 30 mW / 60 sec = 90 minutes of curing time.

Form commond curing chambers, the recommended setting is following:

Post Curing Chamber	Temperature (°C)	Time (min)
FormCure (FormLabs)	60	30
ProCure (Sprintray)	30	15
Phrozen cure XL (Phrozen)		45
Mercury x Cure (Elegoo)		30

Storage

Don't keep resin in the vat for more than 2 days. Filter out all debris in the case of fail print.

Note: Slight pigment settlement is normal. Gentally mix remaining resin in resin vat with soft wiper for color evenness.