Mars 3 Pro Settings Recommendations

Here you will find settings recommendations that members have supplied for various resins using the Mars 3 Pro printer. As with all machines at DMS, your mileage may vary.

Resin Types

[BlueCast XOne resin](#)

BlueCast XOne resin

Submitted by user [Chris Marlow](#)

Recommended print and support settings for the combination of:

- BlueCast XOne resin
- Mars 3 Pro printer
- 0.030mm layer height

These can be downloaded from the Jewelry committee drive.

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1. 0.030mm layer thickness

Strongly recommend 0.030mm. All of the professional jewelers on the BlueCast site are using this layer thickness. Comparison printing confirms a huge improvement over 0.050mm. It takes longer to print but if you're going to spend the time/effort/money to cast something you may as well start from the best wax master.

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2. 35 - 45 degree tilt

BlueCast recommends that flat parts be printed at angles greater than 30 degrees tilted to the build plate; reduces shrinkage and distortion especially if you're not going to cast within a day or two of printing. The XOne people stated that "at low angles the underside will form at a different density to the main body. Try above 30deg". Experimentation confirms that. Some parts printed flat also had no details on top surface.

3. 5.5 second exposure

5.5 second exposure was determined by running Cones of Calibration and confirmed by printing a known good, highly detailed part in the same batch to confirm that real parts perform the way the cones predict.

The advanced settings include a Tolerance Compensation setting that helps reduce detail bleed and increases the crispness of the details.

Images of the settings:

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4. Beefy supports

BlueCast is a thin (non-viscous) resin and they strongly recommend using "beefy" supports. Light supports are discouraged. Support settings are a combination of things from the BlueCast support group and my own testing. YMMV.

Images of the settings:

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