Core Series Post Print and DuraVat Cleaning Procedure for Recharging, Cleaning and Curing

For best quality prints at thinner Z resolution settings, it is necessary to recharge the DuraVat after each print is completed.

Post Print Cleaning Procedure

1. After the print has finished, remove the build table and DuraVat from the printer.
2. Carefully remove the print from the build table using the provided plastic blade and print scraper.
3. Inspect the resin for visible particles. If any particles are seen strain the resin back into a bottle using the provided funnel and strainer. We do not recommend pouring used resin into a container of new resin. Complete the DuraVat Cleaning Procedure before attempting the DuraVat Recharging Process.
4. If no particles are visible in the resin, follow the directions to complete the DuraVat Recharging Process.
5. Insert a recharged DuraVat and clean build table into the printer to resume printing.

DuraVat Recharging Process

1. Hold the DuraVat an angle so that the resin will flow away from the window. The entire window should be free of liquid resin and exposed to air.
2. If residue from the previous print appears as a "ghost image" on the film, gently wipe off the residue away with a clean, debris free microfiber cloth. Be careful avoid scratching the window film.
3. Set the DuraVat on a stable, level surface. Place the lid on the DuraVat.
4. The DuraVat will be recharged after resting covered for 45 to 60 minutes. It can now be reinserted into the printer to resume printing.

DuraVat Cleaning Procedure

Use only a clean, debris-free microfiber cloth to wipe the window area. The non-window portion of the DuraVat can be cleaned by wiping out any residue with paper towels, Isopropyl alcohol may be poured into the vat and swished around to aid in cleaning the interior of the DuraVat. Use extreme caution to avoid scraping, scratching, scrubbing or otherwise damaging the window area of the DuraVat.

1. Inspect the bottom of the glass window and clean with the microfiber cloth if necessary.
2. Assure the DuraVat is recharged prior to use (see DuraVat Recharging Process).

Full or partial print failure

1. Complete the DuraVat Cleaning Procedure before recharging the DuraVat to resume printing.

Cleaning Prints

Printed pieces should be rinsed twice in isopropyl alcohol and dried thoroughly.

1. For the first rinse, place printed pieces inside a watertight container with isopropyl alcohol. Place the container into an ultrasonic bath and agitate for three minutes to remove excess liquid resin. For the first rinse, it is acceptable to utilize previously used isopropyl alcohol.

2. Drain the alcohol from the container and replace with clean isopropyl for the second rinse. It is necessary to use clean, fresh isopropyl alcohol for the second rinse. Place the container into an ultrasonic bath and agitate for no more than two minutes. Longer rinse times may cause defects in the print surface.

3. After rinsing, ensure the printed part is dry and free of solvent residue. It is recommended to use compressed air to dry pieces after rinsing.

Curing Prints

1. Perform the Core Series Post Printing and DuraVat Cleaning Procedures to remove resin from the print. Resin remaining on the print will cause post cure surface finish issues.
2. Fill the glass dish with tap water.
3. Submerge the model under water which improves the curing process and reduces curing time.
4. Orientate the models vertically to assure both sides of the model are cured. Horizontal orientation may require flipping the model to cure both sides.
5. Cure time depends on your part size and geometry. In general, over-curving is better than under-curing models. Cure your model for 2 to 10 minutes depending on size and quantity.
    a. Single ring: 2 – 3 minutes
    b. Multiple rings: 5 minutes
    c. Heavier models: 7 – 10 minutes
6. The A, B and C buttons can be programmed for preset curing time.
7. When properly cured, supports and base should snap off rather than flexing.