



B9Creations
Digital Manufacturing Technology

Important Notice

To ensure optimal performance and maintain the integrity of your equipment, **Nano Dimension Resin Cleaner for ATARU™ materials should not be used within the B9Creations B9Clean product line.**

This cleaner is specifically formulated for ATARU™ and ATARU™ BLACK materials and is intended for use in controlled, manual cleaning workflows as outlined in this document .

Use of this solution within B9Clean systems may result in unintended equipment performance issues. **Any such use will void the B9Clean product warranty.**

For best results please follow the recommended cleaning procedures and approved equipment outlined in this guide.

Post print processes for ATARU™ /ATARU™ Black 3D Printed Parts

Objective:

This cleaning procedure ensures that 3D printed parts are clean, residue-free, and properly prepared for subsequent post-processing steps (UV-Cure and thermal annealing).

Post process steps ensure the curing is complete and provide the targeted thermo-mechanical properties & surface quality.

Best Practices:

- Operate under yellow light is preferred to maintain optimal surface quality.
- Use appropriate PPE gloves for personal safety and avoid contaminating the parts.
- Ensure all cleaning materials are clean and uncontaminated.
- Use well-ventilated areas for resin handling and drying.
- Dispose the cleaning liquids according to local safety and environmental regulations.

Refer to safety recommendations noticed in the MSDSs of Nano Dimension™ Resin Cleaner and to ATARU™ / ATARU™ Black.

Equipment & materials

- Nano Dimension™ resin cleaner
- Tap water
- Pressurized air
- Any type of curing box (365-405nm)
- Oven with a programmable oven up to 200°C

 It is not recommended to use alternative solvents, cleaner solutions, or ultrasonic baths. As their use may damage the surface quality, reduce the mechanical properties and surface quality.

Cleaning - Step-by-Step Instructions:

1. Remove Printed Parts from Build Tray

Carefully detach the printed parts from the build tray to avoid damage. Use appropriate tools (e.g., spatula or scraper) as needed.

2. Remove Excess Ink

Use a scraper or similar tool to gently remove as much residual ink as possible from the surface of the printed parts. Avoid damaging fine details.

3. Resin Cleaner Bath Treatment

- Submerge parts in the **Nano Dimension resin cleaner** bath for 7–10 minutes.
- Agitate the bath (e.g., with a magnetic stirrer or manual stirring) to improve cleaning performance.
- Heating the resin cleaner can facilitate cleaning process. Limit temperature to max 45°C, and soaking time to max 5 minutes.

 Do not use ultra sonification at any point.

4. Water Rinse

Rinse the cleaned parts thoroughly with water to remove any remaining cleaner or ink residues.

5. Blow Dry with Pressurized Air

Use compressed air to blow dry the parts. Ensure all moisture is removed from intricate areas.

 Strong air pressure may damage delicate parts.

6. Repeat if Necessary

If parts are still visibly dirty or stained, repeat steps 3–5 until a satisfactory level of cleanliness is achieved.

7. Final Drying

Allow parts to fully air-dry before proceeding to the next stage of post-processing. Ensure no moisture remains inside or on the parts.

Do not use any other solvent other than nano resin cleaner.

 Glossy areas may appear on surfaces at this stage; these should disappear during the post-curing process.

Post curing - Step-by-Step Instructions:

 Make sure the parts do not touch each other during this step to avoid sticking.

1. UV Curing

Any type of UV treatment is suitable (low risk of overcuring).

Examples:

- 6x10s @50% power (Hoenle UV Cube 100 IC)
- 2x30 min (CureBox Wicked Engineering)

2. Thermal- post treatment

- Heat from room temperature to 200°C:
For bulky parts, apply heat at a controlled rate of 2°C/min to promote even material heating before curing begins. For thin parts heat-up ramps can be 1-3°C/min.
- Dwell time at 200°C – 2 hours.
- Cool down to 45°C at a rate of 3°C/min. The parts can be removed from the oven at 45°C.