

Instruction Manual

Post Processing Real Wax Parts

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gesswein.com • info@gesswein.com • 203.366.5400



A Build Plate with Wax Parts

Post-Processing Guide for Printed Wax Parts

1. Removing Printed Parts from the Build Plate - Learn the proper technique to safely detach your printed parts.

2. Removing Support Wax and Cleaning - Step-by-step instructions for effectively removing support wax and thoroughly cleaning your pieces.

3. Drying and Shaping - Guidance on how to dry your cleaned parts and shape them, if necessary, for optimal results.

4. Where to Buy Supplies - Recommended sources and suppliers for all your post-processing materials and tools.



Hot Plate

Removing Wax Parts from the Plate

- The best method to loosen the wax is to use a hot plate. Place the build platform on the hot plate and gently loosen the parts.
- Quickly remove the build plate from the printer and let the plate come to room temperature.
- Wax Parts can get stuck to the build platform. Keep the plate not too hot, as this will avoid deformation of the waxes.
- Do not exceed 70 degrees with the hot plate, or the printed wax parts can start to fully melt.

Before the Post Processing

This method involves placing parts in an ultrasonic cleaner filled with isopropyl alcohol (IPA). It is recommended to use an ultrasonic cleaner with temperature and heat control.



Digital Thermometer

- Fill the ultrasonic cleaner with 99% Isopropyl Alcohol.
- Start at room temperature.
- Turn on the ultrasonic cleaner and check the temperature
If your cleaner does not have a digital readout.
Please add one of these to your daily tools
- The temperature needs to be no more than 60°F (22°C).
- If the temperature exceeds 95°F (35°C) turn off the cleaner and let the temperature come down.

Cleaning the Parts

The goal of cleaning is to remove the support wax from the waxes

- Use dental tools to place parts into IPA bath, and set the ultrasonic cleaning cycle for 5-15 minutes depending on size and quantity. Make sure the parts put in the bath are not crowded.
- Avoid cleaning for more than 20 minutes.
- The automatic ultrasonic cleaner will shut off automatically when the cycle is complete.
- IPA bath should be changed out when IPA becomes cloudy, thick in appearance, or parts still come out with a waxy feel.
- The ultrasonic action will generate additional heat energy even after the heater control is set. This can cause spikes in heating and distortion of parts if they are left in the UC for long periods.
- Be sure to closely monitor the temperature and maintain the temperature at 65°F (22°C).



Ultrasonic Cleaner

Final Rinse, Drying and Shaping

We recommend cleaning the parts with a second bath with 99% isopropyl alcohol (IPA) and 10% propylene glycol.



Foam Swabs



Dental Kit

- PPG helps hydrate the wax pattern after the dewaxing with alcohol.
- Let the parts soak for 30 seconds.
- To dry your parts, place them on a paper towel and use foam swabs if needed. Avoid using anything cotton because the cotton could tangle itself around the parts.
- For delicate objects, use low-pressure compressed air to blow excess liquid from the part's surface.
- Use dental tools to hold, shape, smooth, and inspect your parts. Foam Swabs are also good at smoothing surfaces.

Item Checklist

1.



1. Hot Plate - A hot plate will help unstick your support wax from your build platform. CAD Blu recommends the Benchmark 7x7 Hot Plate.

- You can purchase your hot plate here: <https://www.usplastic.com/catalog/item.aspx>

2.



2. Dental Cleaning Kit - Dental tools are a great way to hold, inspect, and shape your items.

- You can purchase your kit here: <https://www.amazon.com/dp/B078R7ZX1W>

3.



3. Ultrasonic Cleaner - This machine will post process your newly printed items. CAD Blu recommends the Elmasonic Select Series Ultrasonics. CAD Blu customers receive a discount with Gesswein.

- You can purchase your ultrasonic cleaner here: <https://www.gesswein.com/products>

4.



4. 99% Isopropyl Alcohol - It is important to only use 99% isopropyl alcohol for dewaxing. You need IPA to fill the ultrasonic cleaner to wash your parts to remove the support wax.

5.



5. Propylene Glycol - PPG helps hydrate the wax pattern after the dewaxing with alcohol..

- Both isopropyl alcohol and propylene glycol are available at CAD Blu.

6.



6. Foam Swabs - Foam swabs are used to dry hard to reach places and help shape your parts.

- You can purchase your foam swabs here: <https://www.amazon.com/MIDELONG-Cleaning>

7.



7. Air Duster - This is needed to dry more intricate and delicate pieces.

- You can purchase your air duster here: <https://www.amazon.com/Office-Depot-Cleaning>

Contact Us

We're Here to Help

For any product questions, troubleshooting, or assistance, please reach out to our customer service team. We'll make sure you get the support you need.

Customer Support

Email: info@gesswein.com

Phone: (203)-366-5400

Support Hours

Mon - Fri 8:30AM - 5PM EST

Gesswein®

201 Hancock Avenue
Bridgeport, CT 06605
USA