

Process Tips for Investing & Burnout of Resin Prints with PRESTIGE “Optima”

INVESTING

- Use de-ionized, or distilled water for Investment mixing
- Mix using a 38/100 water to powder ratio. (Use 37/100 for larger, thicker designs)
- After investing has been completed and depending on flask size, bench-set flasks for 3 to 4 hours before starting burnout. This allows for the highest green strength of the investment to be achieved.

BURNOUT

- Make sure to remove all the “Free Water” or water used for mixing during the first stage of burnout before ramping up the oven in temperature. This procedure increases the fired strength of the investment. Starting burnout between 100C. - 150C. and holding temperature there for 3 to 4 hours is recommended.
- NOTE: Photopolymer / wax-based resins do not melt and go liquid, as does jewelry injection wax. Resins will remain intact and expand until they start to vaporize. Get as much information about the resin you are investing from the producer. This will allow you to design the best burnout cycle for the resin used.
- Once all the mix water has been removed during the first stage of burnout, ramp up quickly and directly in temperature to within a range that the resin starts to vaporize. (Ask the resin producer for this information if they will give it to you.) Ramping directly to this temperature avoids excess stress on the mold from the high expansion of the resin.

Example of burnout cycle used: (Provided by Antonio Loy, Images Jewelry Studio, Ltd.)

Load flask at 100C. (212F.) Hold 100C. 4 hours

Quick ramp to 475C.

Hold 475C. 5 hours

Ramp to 760C. (1400F.)

Hold 760C. (1400F.) 3 – 4 hours (4 hours for larger flasks)

Reduce oven to desired flask temperature for casting

Hold desired temperature for casting 1 – 2 hours to stabilize temperature throughout the flask

CAST