

3D Print the pattern

Select the 3D Model .stl file
Set up suitable setting printer parameters
Add proper support structure keeping keeping intaglio free of supports
3D print the part



Wash the print with IPA

Wash the printed part in a Tornado type cleaner filled with IPA (96%) for 3 minutes without removing the Build plate.
1.5 minutes 1st wash
1.5 minutes 2nd wash for extra cleaning

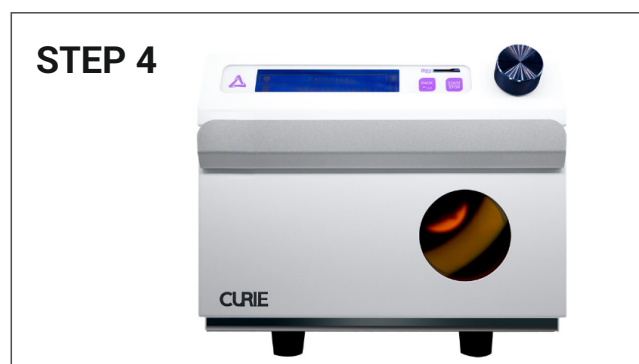
Tip: Both wash chambers to be filled with IPA (96%)



Cut supports & check the fitment of pattern

Cut the supports carefully using a Flash cutter ,

Check fitment of the 3D printed part on a corresponding model



Post Cure

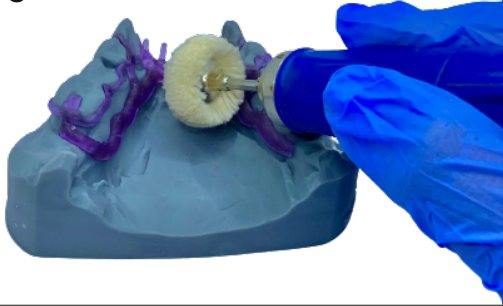
Put the printed part in a glass beaker / Glass pot filled with glycerol (50%) +water (50%) and post cure in a curing chamber. This allows the oxygen inhibited layer to cure. Set curing time based on machine power

1. 30-50 watt- Cure for 20 mins
2. 60-80 watt -Cure for 10 mins
3. >100 watt- Cure for 3-5 mins

*Curing under nitrogen or vacuum will improve results



STEP 5



Finishing & removing support marks

Re-Check the fitment of print on a corresponding model.
Polish the part with a rotary tool / Brush , applying light to moderate pressure and remove support marks

STEP 6



Invest the pattern

Invest the pattern using a suitable high temperature investment

* We recommend Brevest Rapid 1 from Bredent , Germany.

* We also recommend (optional) that you use a pressure chamber to harden the investment.

STEP 7



Burnout Cycle

The burnout cycle that we recommend is 925°C with 35 mins of holding. We also recommend (optional) that you use a pressure chamber to harden the investment.

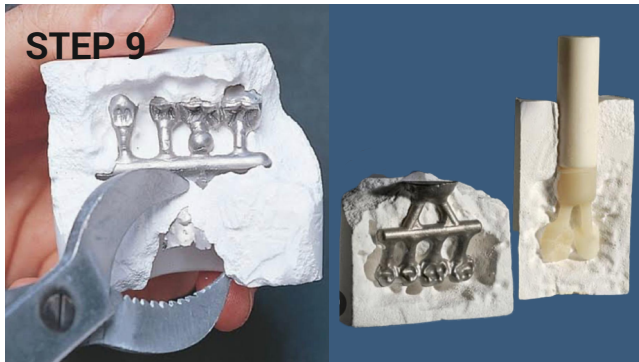
Use a high quality burnout (ventilated) furnace like Nabertherm or Renfert.

STEP 8



Proceed to Casting

For Casting, preferably use a high -end induction casting machine .



Remove form Investment (Divestment)

Remove investment material after casting, using standard divesting techniques.

STEP 10



Sandblasting

Sandblast the part using standard standard techniques

STEP 11



Check the final fitment of casting

Check the fitment of cast part on model . Check for detail

If fitment is perfect and all details are reproduced well, then proceed for polishing and finishing.

STEP 12



Separate the part and Polish

Separate the part from the sprues and polish using standard techniques. Check once again the fitment on the model.

Cast part is ready to ship