

Tiger3D Burgundy Castable Resin Casting Preparation and Burn-Out process



(1) Printing

Print the model as usual. Once finished, remove the printed model from the picker (metal plate) using a putty knife.



(1.2) Printing

If you printed more models in the same build job, separate the selected model from the base cutting the base with a knife or regular scissors.

You may section the base at anytime. Based on your experience, this will determine if it is easier for you to work with individual models or the complete printed build platform.



(2) Cleaning

Using a spray bottle with denatured alcohol (SKU: 80-092) remove the excess of resin from the model's surface. For better results, bath the part for 2 – 3 minutes in the denatured alcohol.



The Tiger3D Burgundy castable resin reacts slowly as it is exposed to the alcohol solutions. Quick baths are the best way to clean parts. Longer baths might affect the surface quality.

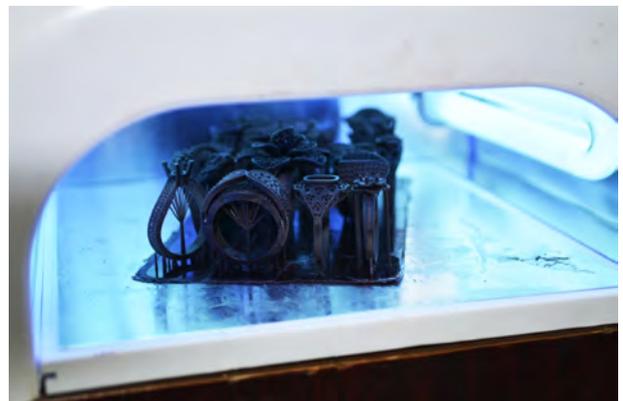
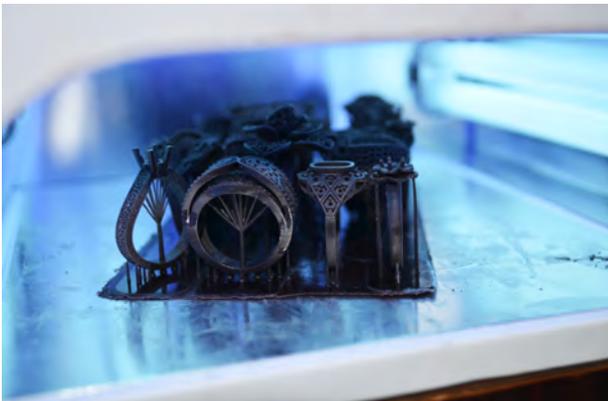
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Using compressed air, dry the model to a matte finish look. This will normally take 1 – 2 minutes.

If the surface is as shiny as it was before cleaning, that means the bath/spray was not sufficient and a quick additional bath is needed.

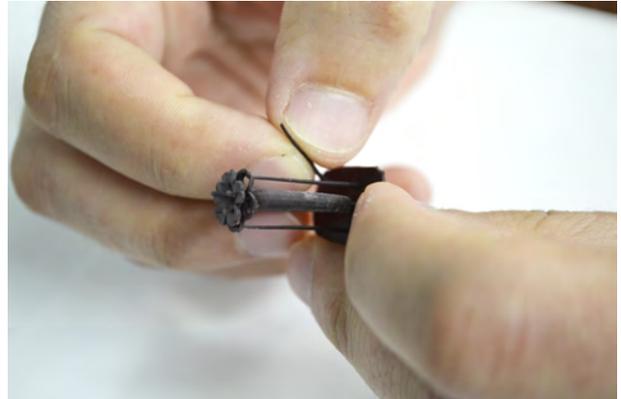


(4) Curing

Place the model(s) inside the post curing UV lamp unit. Depending on the model's geometry, 30 minutes to 1 hour might be required.

The surface should not feel sticky. After curing, the build base may shrink. This will not affect the models printed.

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(5) Support Removal

The PrinterTool software includes different types, sizes and shapes of supports. Normally you will be able to remove the supports by hand, using pliers or knives to get to smaller areas.

Remove delicately. For best results, you may remove supports before curing the pieces.



(6) Casting Preparation

Sprue the model to the casting tree. The support structures must not be used for spruing due to its dimensional ratio.

The sprue diameter must be at least 50% larger than the thickest/heaviest section of the part, and attached directly to this section if design permits.

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(6.1) Casting Preparation

The following burnout curves are for some of the most popular investment. For optimal results, try Fast Cast :

BURN-OUT INSTRUCTIONS



Fast Cast



1. Preheat oven to 300°F.
2. Load flasks and hold for 1-hour at 300°F.
3. Ramp up to 575°F over 1-hour.
4. Hold flasks at 575°F for 2-hours.
5. Ramp up to 1600°F (Platinum) over 1 hour. (1350°F = Gold)
6. Hold for 1-hour at 1600°F(Platinum) and cast. (1350°F = Gold)
7. Reduce flask temp. for Gold down to 1000°F to cast.

For more information, visit: <https://www.romanoff.com/media/pdf/fastcast-instructions.pdf>



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(6.2) Casting Preparation

For Ransom & Randolph (R&R) Plasticast

6 Hour Cycle 2 ½" x 2 ½" Flasks	8 Hour Cycle 3 ½" x 4" Flasks	12 Hour Cycle 4" x 8" Flasks
2 Hours 300°F 2 Hours 149°C	2 Hours 300°F 2 Hours 149°C	2 Hours 300°F 2 Hours 149°C
1 Hour 700°F 1 Hour 371°C	2 Hours 700°F 2 Hours 371°C	2 Hours 600°F 2 Hours 315°C
2 Hours 1350°F 2 Hours 732°C	3 Hours 1350°F 3 Hours 732°C	3 Hours 900°F 3 Hours 482°C
1 Hour Heat Soak At Mold Casting Temperature	1 Hour Heat Soak At Mold Casting Temperature	4 Hours 1350°F 4 Hours 732°C
		2 Hours Heat Soak At Mold Casting Temperature

After the metal is cast and solidified, the investment may be removed by plunging the hot flask into room temperature water or by using a deflasking machine with a hydraulic cylinder to push out the investment and cast tree.

For more information, visit: <http://www.romanoff.com/media/attachment/file/z/1/z14-304-40.pdf>



Ransom & Randolph (R&R) Plasticast