

## Designing Jewelry for Wax Casting

Posted by Marco CM - 2012/04/09 17:15

---

When designing a quality 3d printed jewelry item. There are a few influencing factors to consider. First we will cover design principles and guidelines. Below is a sample image of a "Wax casting pattern" created with Nano-Detail yellow along with a final 10k Gold piece. A jeweler uses this "wax casting pattern" to cast the final precious metal pieces from.

<http://www.kraftwurx.com/images/fbfiles/images/Sample.jpg>

0. The family of "Nano-Detail" materials are best suited for jewelry creation. As these materials come in a wide variety of color and hardness. All of them are formulated for the jewelry wax casting industry and have the cleanest burn-out and finest detail of any 3d print material currently available.

1. Chose a material you'd like to have your 3d print made in.

Read-up on the limitations, detail resolution and minimum wall thickness of that particular material. This information will help you understand what is possible to create with the materials. You learn these material facts here on our materials page.

<http://www.kraftwurx.com/3d-printing-support/3d-printing-materials-finishes/category/materials-2>

2. Know the scale you want the final jewelry piece to be.

Deciding on a specific size for your ring, pendant or bracelet before starting the design is very important. This will help you know how large to make connecting loops, hooks and bans.

Typically the thinnest walls can be 0.4mm. Connecting points for chains loops and hooks should always be a minim of 1mm or more.

3. Amazing shapes and details not possible with traditional jewelry making processes are possible with 3d printing. This means your jewelry can have undercuts, overhangs, ultra-small details, and features such as parts within parts! As long as the components are connected the piece will print. Currently the sky is the limit when designing jewelry for 3d print.

4.Experiment. Try your designs in multiple materials. Try your 3d model in different scales. Hands-on is the best way to get a feel for strength of the materials and what is possible. Currently Kraftwurx offers many Nano-detail materials including "Nano-Detail High Temp". Specifically formulated for the high-pressure and heat of rubber vulcanizing mold making.

Kraftwurx currently offers 9 Nano-Detail materials ideal for jewelry, and highly detailed miniatures. Each with their own properties and abilities. Soon more Nano-detail materials will be available as well.

Although basic. These steps will help kick start you in making quality jewelry designs that last a long time and make your customers happy.

Feel free to ask questions about materials and design practices. You may email [support@kraftwurx.com](mailto:support@kraftwurx.com) Or [Marco@kraftwurx.com](mailto:Marco@kraftwurx.com).

=====