Subject: Stainless Steel specs
Posted by GuyInLogan on Wed, 07 Sep 2011 17:08:30 GMT
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I'm having a hard time finding out if this has been resolved, but I haven't seen much more specific guidance on walls and details for stainless steel.

The materials page says 1 mm for details and 3 mm for walls. 3 mm especially seems a bit large, especially for a ring, which I am creating.

Another page in the forums says "it depends."

Is there additional guidance?

Subject: Re: Stainless Steel specs
Posted by stop4stuff on Wed, 07 Sep 2011 18:12:16 GMT
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On the Stainless Steel Material Page (under Want to know more?) there's a link to Stainless Steel Design Rules, scroll all the way down and under Want to break some rules?, there's another link - Stainless steel: under 3 mm walls

Go break some rules, I did ;)

[edit] sorry, forgot my manners...

Welcome to Shapeways :)

Have fun

Subject: Re: Stainless Steel specs
Posted by GuyInLogan on Thu, 08 Sep 2011 04:04:52 GMT
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Thanks for the links! Should be very helpful.

Subject: Re: Stainless Steel specs
Posted by tessman on Tue, 20 Sep 2011 17:03:14 GMT
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Stop4stuff, how's the Stepped Die D6 working out for you (in SS)? Do you think it's fair to use it as an example of something that "will not work"?

Subject: Re: Stainless Steel specs
Posted by stop4stuff on Tue, 20 Sep 2011 19:30:16 GMT
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Funnily enough, the Stepped D6 & its Step-Twin are both popular sellers without any reported problems.

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Subject: Re: Stainless Steel specs
Posted by Touzel2 on Mon, 24 Oct 2011 02:07:24 GMT
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I looked thru the materials and would like to have my project printed in SS but it does not show up as an option. Why not?

File Attachments
1) 38BushingWrench.stl, downloaded 30 times

Subject: Re: Stainless Steel specs
Posted by duann on Mon, 24 Oct 2011 03:58:21 GMT
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Hi Touzel2

Please email me the url of the part to Duann (at) shapeways.com and I will take a look for you.

KInd regards

Subject: Re: Stainless Steel specs
Posted by stop4stuff on Mon, 24 Oct 2011 07:06:18 GMT
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Hi Touzel2,

Welcome to Shapeways! :)

I took a look at your file in NetFabb. At 0.06mm thick, the model is too thin for stainless... in fact it's too thin for any of the materials Shapeways offers. What dimensions is your model supposed to have? (I'm seeing L=6.34mm, W=2.43mm & H=0.06mm)

Cheers,
Paul

Subject: Re: Stainless Steel specs
Posted by Touzel2 on Mon, 24 Oct 2011 17:45:13 GMT
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My dimensions are as follows in cm according to my drawing and the shapeways site.

Dimensions: Â 16.1 w x 6.2 d x 0.2 h cm

Subject: Re: Stainless Steel specs
Posted by stop4stuff on Mon, 24 Oct 2011 19:32:00 GMT
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mmm... hey ho!

It doesn't really matter the differences between what we are seeing for the dimensions because Shapeways has software checks (MeshMedic) in place that limits the availability of materials if the smallest dimension is less than 2.51mm... stainless is one of those materials.

Subject: Re: Stainless Steel specs
Posted by Tamert on Fri, 18 Nov 2011 00:21:14 GMT
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Does anyone know the layer thickness used in the stainless steel prints from shapeways?

From the ProMetal website, it says that the equipment can either lay down 0.002" layers or 0.008" layers. Obviously this would result in dramatically different levels of detail. Has anyone seen any post from shapeway stating how the machine is running?

This would be similar to the regular/ultra detail frosted materials.

Subject: Re: Stainless Steel specs
Posted by GlenG on Mon, 21 Nov 2011 14:59:49 GMT
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Small SW parts are printed in .004" layers. This is close to the absolute minimum of this process.

-G

Subject: Re: Stainless Steel specs
Posted by jiavano on Wed, 28 Dec 2011 01:48:15 GMT
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Does anyone know if the stianless has any nickle or copper in it? It's important to know cause I'm making a gift for a friend and she's allergic to nickle and copper.

Subject: Re: Stainless Steel specs
Posted by pfeiffer stylez on Wed, 28 Dec 2011 02:32:56 GMT
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Copper: definitely
Shapeways' stainless steel is bronze infused - and bronze is at least 60% copper

Nickle: very probably
Not in the steel (the 400 series does not contain nickle), but the bronze alloy probably contains nickle.

Subject: Re: Stainless Steel specs
Posted by GlenG on Fri, 30 Dec 2011 18:17:31 GMT
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Pfeiffer is correct, no nickel in the stainless component. The bronze infiltant is a tin bronze alloy, I think about 80/20 so it is high in copper, but no nickel. The best way to avoid skin contact is to apply extra heavy coatings of a durable acrylic clear coat. Like a water based polycryllic floor finish. These will wear off over time but they are very durable. People with skin allergies should probably avoid wearing finger rings, earrings or other body studs made from this material. Bracelets and pendants should not be a problem.

-G

Subject: Re: Stainless Steel specs
Posted by jiavano on Fri, 30 Dec 2011 20:07:37 GMT
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Thanks guys, I appreciate the info. It's good to know, guess I'm gonna have to coat the pendant with polycryllic floor finish. I wouldn't wanna the risk of her getting her to swell. Unless if you guys know of any other way of getting pure stainless steel, perhaps cast with no copper or nickel.