Subject: minimum engraving thickness and 2 colors
Posted by wasaad on Wed, 11 Jan 2012 22:41:19 GMT
View Forum Message <> Reply to Message

Hi,
If the 3D model has engraving (like in jewlery) , what is the minimum width of that engraving if the model is silver or steel (or any metal you work with for that matter) ?

Is it possible to produce the model in two colors (silver and gold) ? I am thinking of use a silver core and covered with gold color material, the engraving can produce 2 colors...

Thanks,
Was

Subject: Re: minimum engraving thickness and 2 colors
Posted by stonysmith on Thu, 12 Jan 2012 00:04:57 GMT
View Forum Message <> Reply to Message

Please review the Silver Design Rules. That should answer your questions about depth/width.

Steel has separate design rules, and different limitations.

Gold is only offered as a plating option on steel, and no, you can't mix metals at this time.

Subject: Re: minimum engraving thickness and 2 colors
Posted by Youknowwho4eva on Thu, 12 Jan 2012 01:14:02 GMT
View Forum Message <> Reply to Message

Also, any "engraving" in the model won't show the stainless beneath the gold as it actually wouldn't be "engraved" it would be printed with the indentation and plated afterwards.

Subject: Re: minimum engraving thickness and 2 colors
Posted by GlenG on Thu, 12 Jan 2012 16:48:11 GMT
View Forum Message <> Reply to Message

In the SS material the lower limit for "engraved" lines or grooves is about 1mm /.040" in width. The depth of the lines should not exceed about 1.5mm/ 060". Try to maintain this wdth./ dpth porportion no matter what size of groove use use.

I have often thought that narrow 3d printed lines (grooves) could be back filled with contrasting metals. This however would still need to be done by hand but, spectacular results would be possible. Contrasting solders could be flowed into grooves or pockets on the design then the surfaces ground down to an even plane. Small diameter wire of brass, copper, silver, or gold could be hammered into narrow groves with the same result.

-G

Subject: Re: minimum engraving thickness and 2 colors
Posted by stop4stuff on Thu, 12 Jan 2012 17:52:31 GMT
View Forum Message <> Reply to Message

Shapeways stainless can be heat coloured and then raised areas ground/polished back to give good contrast - seeStainless Steel Dice - the gaps (note: gaps not engraving) are around 0.4mm.

Subject: Re: minimum engraving thickness and 2 colors
Posted by GlenG on Thu, 12 Jan 2012 19:19:15 GMT
View Forum Message <> Reply to Message

Gaps, lines, grooves will print at .4mm, maybe even finer than that. It's just that loose powder leftover from the print process can sometime remain lodged in random areas of the grooves making for less than perfect results. Also sometimes during bronze infiltration very narrow grooves can be drowned out. A lot depends on the overall design. A broad flat surface inscribed with a design or pattern composed of line widths less than .5mm is likely to have some flaws. Whether this is acceptable or not is up to the individual designer.

-G

Subject: Re: minimum engraving thickness and 2 colors
Posted by stop4stuff on Thu, 12 Jan 2012 19:30:48 GMT
View Forum Message <> Reply to Message

Yes Glen, that's why I re-iterated gaps. You know me, pushing the boundaries and all that. Sorry, you know best working with the material every day (where's the green envious smiley)