Subject: Min void vs Min thk?
Posted by Greek2Me on Fri, 23 Mar 2012 16:37:22 GMT
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I'm working on a pendant that has lettering on it. My first attempt was raised lettering, but then I decided to try subtracting the letters instead (partly to lower the volume and hence, the cost). The model was rejected (see attached) citing a minimum opening as the cause. Is this roughly comparable to the minimum thickeness of any given material or is there some other value for a gap that prevents adjacent material from fusing back together?

Loving the products I have received so far, by the way...

Thanks

RMc

File Attachments

1) RejectedTo the moon - Lettered.jpg, downloaded 60 times

Subject: Re: Min void vs Min thk?
Posted by Youknowwho4eva on Fri, 23 Mar 2012 16:52:02 GMT
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When subtracting text, in metal prints (what material was it rejected in?) the depth can not exceed the width. Meaning if your letters are .5mm wide, they can be at most .5mm deep. Also, your item appears to be hollow? Perhaps your gaps are too small for the build material to escape?

Subject: Re: Min void vs Min thk?
Posted by Greek2Me on Fri, 23 Mar 2012 17:19:02 GMT
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Yes, it was intended to be hollow to allow for enough thickens to provide for two minimum thick walls and a void between. I thought it would be cool to be able to see thru (abeit slightly). Never thought about material being trapped, so I suspect the latter is true. The gap is something on the order of .02 inches. It was ordered in bronze. Suggestions?

RMc

Subject: Re: Min void vs Min thk?
Posted by Youknowwho4eva on Fri, 23 Mar 2012 17:38:34 GMT
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So your gap is around .5mm for a stainless print. By the stainless rules the minimum gap for near touching parts is 3mm. I'm not sure if it's this rule in violation or not. I'll see if I can get a clearer answer for you.

Subject: Re: Min void vs Min thk?
Posted by stonysmith on Fri, 23 Mar 2012 18:06:42 GMT
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Remember that as you indent the lettering, the wall thickness in the indention is getting thinner too. I know I'm stating the obvious here, but it's a trap that I fall into from time to time.

I start with the green box and hollow it out. Then, I indent some feature, producting the red box, and forget that what was a nice comfortable 1mm is now 0.5mm thick. Of course it gets rejected because I forgot what I was doing, and I have to go back and update to the yellow box with more material behind the indention.

Subject: Re: Min void vs Min thk?
Posted by Greek2Me on Fri, 23 Mar 2012 22:02:18 GMT
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This is CLEARLY going to take a lot more study of the various material design sheets! I look thru various galleries and the pics SEEM to show relatively small items with VERY intricate (and thin) meshes, such that I didn't think what I was doing even came close to the limits. Please be patient with me, I'm trying to work thru as much as possible without hounding you about every little aspect of this. Looking forward to printing some really good stuff!

Thanks.

RMc

Subject: Re: Min void vs Min thk?
Posted by Greek2Me on Sat, 24 Mar 2012 14:11:03 GMT

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So you are saying that the minimum slot for "negative" letters would be around 1/8" (3mm)??? That pretty much rules out this style of text on small items doesn't it? Guess I'll have to go back to a solid object with recessed text. Apparently the printing process treats that as a "detail" and provides for much finer tolerances.