
Subject: Warping help please!

Posted by [lorddragonmaster](#) on Wed, 24 Oct 2012 15:02:37 GMT

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Hello,

i just received my second order from shapeways, a pair of swords.

The sword's blade splits into 2 blades(not physically come apart, but are spaced) , but unfortunately one of the blades warped so it is no longer straight. I got one printed in WSF and FUD.

The blade in question is 2.5mm thick with a length of 6cm.

the blade beside it is the same length, and thickness, but it didn't warp. Now I have 2 questions.

1)What should I do so future printed blades do not warp? (keep in mind I have the same design printed with 1.5mm thick blades with no warping)

2)What can I do to the current blades to warp them a little straighter?

Below is an previous image of the sword (with 1.5mm blades, not the current 2.5mm ones), it was the smaller blade that warped.

Thanks for any help!

<http://i.imgur.com/JC5Ci.jpg>

Subject: Re: Warping help please!

Posted by [Youknowwho4eva](#) on Wed, 24 Oct 2012 15:06:49 GMT

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Which piece is warped? the WSF or the FUD? They both can be flexed into shape after running some warm water over them. I would send some pics of the packaging and the warped pieces to service so we can try to prevent this from happening in the future.

Subject: Re: Warping help please!

Posted by [lorddragonmaster](#) on Wed, 24 Oct 2012 16:28:18 GMT

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Youknowwho4eva wrote on Wed, 24 October 2012 15:06 Which piece is warped? the WSF or the FUD? They both can be flexed into shape after running some warm water over them. I would send some pics of the packaging and the warped pieces to service so we can try to prevent this from happening in the future.

Both the WSF and FUD warped the same way.

Sorry for the blurry pic, iphone wouldn't focus. But you can clearly see how it warped (the red line is where it should have been).

I also had a 5mm port and handle on a sprue to plug in, but on both the WSF and FUD either the handle is wider than 5mm or the hole is smaller than 5mm, because one wont plug into the other.

Subject: Re: Warping help please!

Posted by [Youknowwho4eva](#) on Wed, 24 Oct 2012 17:09:31 GMT

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That looks to me like a little bit of over packing. For you fit, check the material design guidelines. For WSF the accuracy is listed as $\hat{A}\pm 0.15\text{mm}$, then $\hat{A}\pm 0.15\%$ of longest Axis. For FUD it's listed as $\hat{A}\pm 0.025\text{-}0.05\text{mm}$ for every 25.4mm. So for WSF to assure a fit, you'd want the hole to be .15mm large, and the handle to be .15mm small. For FUD only .05. In some cases that would be over kill. So you could just sand the pieces down a little post production.

Subject: Re: Warping help please!

Posted by [lorddragonmaster](#) on Wed, 24 Oct 2012 17:22:01 GMT

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Youknowwho4eva wrote on Wed, 24 October 2012 17:09 That looks to me like a little bit of over packing. For you fit, check the material design guidelines. For WSF the accuracy is listed as $\hat{A}\pm 0.15\text{mm}$, then $\hat{A}\pm 0.15\%$ of longest Axis. For FUD it's listed as $\hat{A}\pm 0.025\text{-}0.05\text{mm}$ for every 25.4mm. So for WSF to assure a fit, you'd want the hole to be .15mm large, and the handle to be .15mm small. For FUD only .05. In some cases that would be over kill. So you could just sand the pieces down a little post production.

Wow that is quite a small difference!

So for WSF

The hole should be 5.15mm and the handle 4.85mm

For FUD

The hole should be 5.05mm and the handle 4.95mm

I will give warm water a shot at fixing the blade, I just hope it doesn't mess up the other.
