Subject: WIP (Transparent) Helmet Visor [Advice?]
Posted by AD-Edge on Thu, 09 Feb 2012 13:31:14 GMT
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Hey guys, I just received my latest order from shapeways (which was epic!)

I have a character printed out, along with his helmet, and what Im currently trying to sort out is the glass visor which slots into the helmet.
My first test print of the visor was in FD, and I hoped that it would be thin enough to be transparent so you can see the characters face behind in the helmet.

You can see in the pictures below, the visor was a slightly yellow tinged opaque colour due to a small layer of wax on the surface from the printing process.

After cleaning most of it off with Acetone, the visor is no longer yellowish, but its still no where near as transparent as I was hoping. The edges seem a lot better (where the model curves around) which leads me to believe that the orientation of the printed surface also effects the transparency and Ive read in other threads about this white frosting on the surface which sometimes happens with FD (making FD less desired as the material for this object).

So my question is - does anyone have any advice or ideas on how I can make this more transparent.
My ideas so far are to either polish it somehow to make the surface smooth (might help?) or to simply reprint with much thinner walls or in another material (Im thinking Transparent Detail is the obvious next one to test)

The wall thickness of this is probably around 5mm at the thickest parts, so I have a bit of room to optimise there for sure.

Cheers!

-Alex

Subject: Re: WIP (Transparent) Helmet Visor [Advice?]
Posted by animerb on Fri, 10 Feb 2012 00:38:01 GMT
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i'm not sure if this would work. but you might try sanding it completely and spraying it with a gloss clear coat. I guess the question is, is the opaqueness a quality the material itself or just the surface of the material after its 3d printed?

Subject: Re: WIP (Transparent) Helmet Visor [Advice?]
Posted by AD-Edge on Fri, 10 Feb 2012 00:40:04 GMT
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Hard to tell, but it could just be the surface which is why sanding it back or buffing it might improve it.

I feel like Ive printed it way too thick tho...

Lucky its just a test model at this stage

Subject: Re: WIP (Transparent) Helmet Visor [Advice?]
Posted by BillBedford on Fri, 10 Feb 2012 10:07:59 GMT
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Put the piece into some water. If it looks clear then sanding and varnishing will give you a transparent object. Try using Johnson's Kleer as the varnish (or what ever it is called in your country)

Subject: Re: WIP (Transparent) Helmet Visor [Advice?]
Posted by abby on Fri, 10 Feb 2012 11:36:08 GMT
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With such a simple part I would cast the visor in transparent resin.
Give the object a coat or two of primer and flat it down until the surface is smooth then apply a gloss finish.
When dry polish with fine compound before taking a silicone rubber mould.
Simple and cheap too.

Subject: Re: WIP (Transparent) Helmet Visor [Advice?]
Posted by AD-Edge on Sat, 11 Feb 2012 02:49:45 GMT
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abby wrote on Fri, 10 February 2012 11:36With such a simple part I would cast the visor in transparent resin.
Give the object a coat or two of primer and flat it down until the surface is smooth then apply a gloss finish.
When dry polish with fine compound before taking a silicone rubber mould.
Simple and cheap too.

Yeh, that would probably work fine, not quite what Im wanting though, since Id rather be able to print the object and have it 'ready' with little hassle. Plus Id like the model to be available for others to print in the event that I sell the model or something similar in future.

BillBedford wrote on Fri, 10 February 2012 10:07Put the piece into some water. If it looks clear then sanding and varnishing will give you a transparent object. Try using Johnson's Kleer as the varnish (or what ever it is called in your country)

Thanks, I think I'll give this method a go, before printing a thinner version.