
Subject: Mold-making/Resin-casting with a Shapeways model...
Posted by [magengar](#) on Tue, 15 Jan 2013 11:17:41 GMT
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Hi everyone, I'm new at this hobby. I'll start having some of my own objects printed soon. I want to try the White Strong Flexible material (WSF) for my mold-making/resin-casting projects.

My question is:

Will the white-strong-flexible material printed model hold up well inside a silicone rubber mold as the mold cures?

(Before I begin the mold-making process I must coat the original object with a mold Release Agent. The Release Agent will prevent the silicone from sticking to the original object, thus making it easier to remove the object after the silicone rubber mold has cured.

I'm worried about the possibilities of the Shapeways object getting damaged from the chemicals in the silicone rubber while the mold is curing.

The mold takes about 18 hours to cure... I usually let it cure for 24 hours maximum before I remove the object from the mold.

For reference, I'm using the Alumilite silicone rubber mold-making kit.)

Thanks in advance.

File Attachments

1) [High Strength 3.jpg](#), downloaded 420 times

Subject: Re: Mold-making/Resin-casting with a Shapeways model...
Posted by [stonysmith](#) on Tue, 15 Jan 2013 14:21:52 GMT
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Simply put, WSF is nothing more than Nylon. I might be totally off base, but I can't imagine that the 'rubber chemicals' will do any damage at all to the nylon, especially given that you're going to be coating the nylon with the release agent.

If you want to test it, go find a nylon coat hanger and try casting a section of it.

The one thing you need to consider is that the printing process produces a porous matrix, rather than solid. It will suck up quite a bit of the release agent, but that shouldn't hurt what you're trying to accomplish.

Subject: Re: Mold-making/Resin-casting with a Shapeways model...
Posted by [magengar](#) on Tue, 15 Jan 2013 16:05:11 GMT
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Thank you, Sir! I'll give that a shot before I go ahead with an object from Shapeways. I noticed some of the WSF materials seem rough-textured... I shouldn't have any problem lightly sanding the surface smooth and perhaps sealing the surface with a coat of acrylic so that the silicone won't get absorbed into the object. I know that once I get my first object printed at Shapeways I'll become addicted!

Again, Thank you!

Subject: Re: Mold-making/Resin-casting with a Shapeways model...
Posted by [sherman](#) on Fri, 18 Jan 2013 10:10:12 GMT
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i have been making moulds of models since 1985 and have moulded all sorts of things. i have now started to mould 3d printed models as well in the white nylon. it will be ok in a silicone mould as there is no pressure but thin pieces may break off when demoulding it. i have also vulcanised some white nylon in a vulcaniser at 90 degc and 10 tons of pressure but these were solid parts and it had no detrimental effect at all. you will not be able to sand down the 3d print to make it smooth however esp in areas of detail. i make a mould then a cast and then modify that cast instead, costs more in moulds but it is worth it in the end. good luck with it, it is a steep learning curve.

Subject: Re: Mold-making/Resin-casting with a Shapeways model...
Posted by [magengar](#) on Fri, 18 Jan 2013 12:37:49 GMT
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Thanks guys... I welcome tips and suggestions, they're all helpful.

Casting from the Shapeways-printed object and then modifying the resin copy is a good idea. I usually end up modifying and touching up my first resin cast object, anyway. I can just use the Shapeways object as a template

to start the basic sculpt for things I'd otherwise find impossible to sculpt from scratch with clays and putties.

As a hobby, I collect Japanese action figures and model kits of anime robots from the '70s and '80s anime tv shows...
...some of my robot figures may need replacement parts, or I'd customize some of my beat-up robots with my own custom-made parts.

Then there's just the one occasion in which I don't wanna modify a newly-bought robot figure, but I'll cast its body parts to make a resin copy of the robot figure, or, I'd use the parts to make enemy robots for the hero robot figure. lol

File Attachments

1) [McMAZ_final01.png](#), downloaded 365 times

Subject: Re: Mold-making/Resin-casting with a Shapeways model...
Posted by [sherman](#) on Fri, 18 Jan 2013 12:49:04 GMT
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good luck with ti, if you need any advice on moulding ect please email me
sales@sandsmodels.com
see my stuff on
www.sandsmodels.com
thanks
shaun
