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Subject: How S&F is WS&F?

Posted by [Aquillyne](#) on Fri, 09 Nov 2012 23:23:45 GMT

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Hi there,

Does WSF have a snapping point? How strong and flexible is it?

Imagine a model was just a long straight stick. How far could you bend it round?

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Subject: Re: How S&F is WS&F?

Posted by [stonysmith](#) on Sat, 10 Nov 2012 04:12:46 GMT

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Take a look at this video:

<http://www.youtube.com/watch?v=wXgbJB9v6Zk>

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Subject: Re: How S&F is WS&F?

Posted by [Aquillyne](#) on Sat, 10 Nov 2012 10:40:41 GMT

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Very interesting!

But at some point will it plasticly deform? At some point will it snap?

In short, can I make a model from WSF that is designed to bear a heavy load? e.g. a coat hanger?

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Subject: Re: How S&F is WS&F?

Posted by [stonysmith](#) on Sat, 10 Nov 2012 14:33:28 GMT

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Well.. they printed a pair of scissors...

<http://www.shapeways.com/blog/archives/1701-Popular-Science-Knows-that-Shapeways-3D-Printing-is-the-Future-of-Everything-VIDEO.html>

I see no reason that a coat hanger shouldn't work.

The only thing to consider is that WSF (scintered Nylon) is less dense than it would be thru an extrusion process - to acheive equal strengths, any structure you design will need to be thicker than if you were working with an injection molding machine. (there's a video in the blog about that too)

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Subject: Re: How S&F is WS&F?  
Posted by [mkroeker](#) on Sat, 10 Nov 2012 15:35:37 GMT  
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If you call WSF by another name, "laser-sintered nylon 12", "polyamide 12" or search for "SLS - selective laser sintered plastic", you will find that it has become an important material in the automotive industry, and there are several studies of its strength and long-term stability. E.g. this article in Polymer Testing, while being paywalled, has the abstract section and thumbnails of figures freely available.

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Subject: Re: How S&F is WS&F?  
Posted by [duann](#) on Mon, 12 Nov 2012 14:16:36 GMT  
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Hi mkroeker,

We are looking to rename some of the materials  
white strong flexible to Nylon,  
Frosted Ultra Detail to High Detail Acrylic

You will notice that this naming protocol is starting to appear in the material sample kits then will make it's way across the entire Shapeways site.

This will make it easier for people find and understand the materials.

Thanks

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