

## Modeling for Clear SLA

Posted by Marco CM - 2012/01/12 18:17

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I have created and purchased a few items in Clear SLA. Along the way I learned a good deal about minimum wall thickness and build support structures. I hope to provide some tips on 3d printed in Clear SLA material and it's limitations.

1. Minimum wall thickness of 0.020"
2. Consider the support structure created upon 3d printing.

1. Clear SLA materials require a minimum of 0.020" wall thickness for structural stability. Any wall or structure too thin will either not 3d print or will fracture soon after.

2. Each layer of Clear SLA is somewhat soft and pliable immediately after 3d printing. The material hardens and becomes more rigid after it cures shortly there after. Vertical supports are grown along with the building process to ensure the part does not collapse or fracture when soft. After the part is 3d printed. The support structures are removed.

When you model for Clear SLA imagine where vertical supports may be required during a build. Consider how difficult it may be to remove the supports once the part is completed. For example if you create a hallow ball in Clear SLA. The ball shape would require supports on the inside of the ball. Making them impossible to remove after construction. Clear SLA offers good strength but has shape limitations due to the support structures.

A good alternative to Clear SLA is Object FullCure 720. This material is less optically clear than Clear SLA. But the support structures wash away with water. Making it great for nearly any 3d shape. Below are samples of items 3d printed in Clear SLA.

[http://www.kraftwurx.com/images/fbfiles/images/Clear\\_SLA\\_Ornament\\_web.jpg](http://www.kraftwurx.com/images/fbfiles/images/Clear_SLA_Ornament_web.jpg)

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## Re:Modeling for Clear SLA

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Clear SLA pen stylus.

[http://www.kraftwurx.com/images/fbfiles/images/Clear\\_SLA\\_stylus1\\_web.jpg](http://www.kraftwurx.com/images/fbfiles/images/Clear_SLA_stylus1_web.jpg)

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Close-up of Clear SLA pen stylus.

[http://www.kraftwurx.com/images/fbfiles/images/Clear\\_stylus1\\_web.jpg](http://www.kraftwurx.com/images/fbfiles/images/Clear_stylus1_web.jpg)

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