Subject: Normals Need to Be facing Outward or Inward?
Posted by SRZDesign on Thu, 13 Dec 2012 00:36:39 GMT
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I can't seem to located the tutorial mentioning which direction the "normals" should be facing (working in Blender 3D file).. Which is it?? Thanks.

Subject: Re: Normals Need to Be facing Outward or Inward?
Posted by stonysmith on Thu, 13 Dec 2012 01:32:15 GMT
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The normals must be outward.

It gets a little tricky if you have multiple shells and are trying to use one of them to hollow out a larger shell, but the general rule is "normals out".

Subject: Re: Normals Need to Be facing Outward or Inward?
Posted by Fredd on Thu, 13 Dec 2012 02:17:33 GMT
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The face normals point away from the material thickness, They define material volume. Good example is to create a unfilled mesh circle. Use Extrude/escape scale to give it a thickness. Make sure all normals are facing the same direction and extrude it(Ctrl N if not). If you have Display Normals selected, the outer face normals of your newly created pipe will face outward, the interior faces inward. The material volume is defined.

They do it also for a model that you you want a inner wall(hollowed out). If you have the Measure panel addon, this technique will show it.
 Add a cube in object mode, give it a material. All normals should be pointing outward. You activate measure in N panel/volume, will show you the volume..Now add another cube in object mode, give it another material, scale it down where it fits inside the outer cube. Its normals also will be facing outward. If you join both objects(Ctrl J),go into edit mode, update model, go to object mode you will notice the volumes of the outer cube and inner cube have been added together.
  Now in edit mode, with nothing selected , click on the material of the inner cube, click select beneath material tab, then in the tool panel flip its normals. Update selection again, go to object mode, check the difference in volume(material volume) The inner cubes faces will be pointing inward, while the outer cubes face outward. The wall thickness volume is defined. You still have to connect the outer surface and inner surface to allow powder to escape, but creating another manifold object, have it intersect the outer and inner surface, the boolean difference mod will

create a tunnel.