
Subject: 3d Printing for Research Use - Safe material for strong bases?

Posted by [Kezro](#) on Sun, 24 Feb 2013 16:45:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi All!

I am a part of a project team at my university and we are looking into using 3d printing to design battery containers. In the past we have always machined a thick acrylic however our current project a detailed container to be built several times over and it isn't practical to make it by hand. So we've turned to 3d printing as a viable option. However, our main concern is the possibility of disintegration of the material in the presence of our chemicals.

We are working with a concentrated solution of Potassium Hydroxide (KOH), Activated Carbon, and aluminum. We need the box to be rigid, and non-reactive. Does anyone know what type of material we should pursue for this use or if it is possible at all?

Thank you!
Kezro

Subject: Re: 3d Printing for Research Use - Safe material for strong bases?

Posted by [stonysmith](#) on Mon, 25 Feb 2013 16:02:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

The only material I would think might be appropriate would be WSF which is nylon.

However, if you review this video you'll see that the WSF material is rather porous. I would be very concerned about long-term seepage of caustic fluids.
