

Christopher's rubber solution

« How to »

First of all, I would like to thank the nuigroup.com community.

This guide shows how to prepare your rubber and how to apply it on your acrylic for an FTIR system. This guide is made in two sections, the first is product preparation and the second is pulverisation. My solution works; you can see a video of my setup here: <http://www.youtube.com/watch?v=LfomuLWSPxg>

Product preparation Material needed

	<p>Dap 300ml Draft attack removable caulk Model: 7079870528</p> <p>Or DAP® SEAL 'N' PEEL® Removable Caulk Model: 7079818324</p> <p>It look the same... if its toluene base</p> <p><u>Where to find</u> <u>http://www.dap.com/find_a_retailer.aspx</u></p>
	<p>Toluene is a common solvent, able to dissolve: paints, paint thinners, many chemical reactants, rubber, printing ink, adhesives (glues), lacquers, leather tanners, and disinfectants.</p> <p>You will find toluene in any good paint store.</p>
	<p>Empty paint can</p> <p>You will find paint cans in any good paint store.</p> <p>Or you could check this link: <u>Empty paint cans</u></p>

Product preparation 3 steps preparation

	<p><u>First step:</u></p> <p>Put silicone in the empty paint can using a caulk gun.</p>
	<p><u>Second step:</u></p> <p>Put toluene in the can. From my experience, two tubes of caulk will require to fully load the can with toluene. So one tube should require the half. Start with less and add more to obtain the good consistency.</p>
	<p><u>Third step:</u></p> <p>Mixing... Not too many things to say about it... Shaking is the best, if you have access to paint shaker, it should help you for this step...</p>
	<p><u>Final result</u></p> <p>It should look like this when it's totally dissolved.</p>

Now the product is ready, you can apply it with the pouring method or you can use the spraying method.

You can watch a video I've made showing my result "with and without" this rubber:

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

Vaporisation Material needed

	<p>Hvlp spray gun</p> <p>This is the best choice to do this job but it will require an air compressor.</p> <p>Search eBay for hvlp spray gun</p> <p>Don't buy those mini hvlp, the stuff dry too fast it's hard to do a good job. I've found many hvlp gun for 30\$ shipping included.</p> <p>Or</p>
	<p>Electric spray gun</p> <p>I have not tested this kind of spray gun but I think it should do the job and it doesn't require an air compressor.</p> <p>Search eBay for electric spray gun</p> <p>I've found many for 15\$ shipping included.</p>
	<p>Paint filter</p> <p>You should find paint filters in any good paint store.</p>

Now if you have your spray gun and your rubber mixed, you are ready to spray your rubber over your acrylic. You should find a well ventilated place where you will be able to spray your coating. You can spray it outside but try not to do this a windy day to avoid unwanted particles to stick onto your surface.

Safety

Toluene is a solvent, it's highly inflammable. Like many varnish or stain you should apply it in a well ventilated place...

Vaporisation Six steps application

	<p><u>First step:</u></p> <p>Prepare your acrylic. If it's a used acrylic, wash it vigorously with toluene. If it's new, remove the protective only and don't wash it or touch it (it's the best). I put tapes around the surface because I don't want rubber on the last 1/2 inch edges.</p>
	<p><u>Second step:</u></p> <p>Filter your rubber and fill up your spray gun with the mix.</p>
	<p><u>Third step:</u></p> <p>Spray your surface. Try with toluene onto paperboard to practice. Apply many small layers rather than one big or the product may ripple. Let the layer dry one or two minutes before spraying the other.</p>
	<p><u>Fourth step:</u></p> <p>Let the product dry for at least 24 hours.</p>

Vaporisation Six steps application

	<p><u>Fifth step:</u></p> <p>Cut along the tapes before removing the tapes or the rubber layer may follow. I use my nails to prevent scratching the acrylic.</p>
	<p><u>Sixth step:</u></p> <p>Remove the tapes.</p>
	<p>If you ever do a mistake, you will be able to remove the rubber layer but you will have to wash seriously your acrylic with toluene.</p>

Faqs

- 1- You don't need both spray gun and it may be different from my picture.
- 2- You are not obligated to put tapes around the edges.
- 3- If you remove your rubber layer, wash seriously with toluene or the next application won't be good. You will have spots where the ftir effect will be visible.
- 4- If you have "fish eye" spot when spraying, your mix is contaminated. Wash seriously your stuff and check for the contamination source.
- 5- You should always be the most cleanly as possible. Wash everything.
- 6- It's not necessarily an easy solution but playing with spray gun is cool.

From Christopher Jetté formerly known as Christopher on nuigroup.com
Sorry for my English, I'm french... ☺ I think it's not so bad ☺