

SILICONE PAINTING NOTES by Valentina Visintin

I've been wanting to do this for long and finally had some time to sit down and gather all the spare notes and try to run a logic thread through them. Please bear with my English, I am not mother tongue ;-) if something is not clear enough feel free to contact me.

Silicone painting is fascinating; it's incredible how it is possible to achieve a life likeness on a rubber surface!

STEP 1 – Cleaning

Silicone, no matter if platinum or titanium based is a material that is hard to bond to any surface, often not even against itself. It contains oils and solvents that keep coming through the surface. This could affect our painting making it not stick properly or making it peeling off no matter how well we dried it.

A simple but effective way to improve the paint to stick is starting with a thorough cleaning of the piece. Before even starting make sure you have a proper former where to rest your piece on, and pin down any edges without stretching the piece. If there are heavier areas that look like they're stretching down you can dab some dots of prosthetic glue (prosaide or Telesis) to the back of the piece where more support is required (you will have to carefully remove the piece from the former using a bit of IPA alcohol).

The cleaning method I find working better so far is to wash the surface with hot water and fairy liquid (aka dishwashing soap) using a soft sponge. You don't need to soak the piece or you would ruin delicate edges, simply gently rub the sponge on the surface allowing some foaming and then rinse with a clean sponge and clear water. Dry by dabbing some paper tissues, then gently rub a cotton pad with some IPA (aka isopropyl alcohol). This procedure gets rid of residues of demoulding agents and gets rid of the oil that sits on the surface of silicone. If you experience some delamination of the cap-plastic (on encapsulated pieces) touch up with a cotton bud and a little amount of acetone to blend it back. If the area delaminating is bigger than a few millimetres diameter you might consider to spray a light layer of cap plastic on the affected area, and let it dry properly.

STEP 2 – Sealing the surface

Sealing the surface is an important step for silicone painting. It will create a base for your paint to stick on. Also this passage will be repeated at the end as a final seal layer and what you will obtain is a "sandwich" that will protect your art work.

To seal I use an acetic silicone (known as caulking silicone) or sometimes a solvent-based flowable silicone. You can find those products under several different brands, they are sold in most of DIY shops or building materials suppliers or hardware stores. I personally like a lot the RS Flowable Fluid 692-542 which I use for both sealing and painting. In the past I have used Wacker Elastosil A07 (very quick at drying which is handy if you're in a rush), or the Dow Corning 734, but even the cheap "bathroom" silicone in emergency worked well, as long as it was translucent. Those three specific products that I mentioned are flowable fluids which means a lot less dilution is necessary, they also are quick drying silicones. Other one-packs are thicker and slower to dry. There is another option that works only on platinum based silicones but it's very expensive: to use the same A+B silicone mix, just thinned down. (Some paints in commerce are based on this principle, they're two parts, one of which tinted, you mix them by weight or volume. It's simply A+B platinum silicone plus pigment ☺).

To thin down silicones there's a choice of diluents, the cheapest of which are very easy to find in the same stores as above or art shops. The cheapest diluent to use is White Spirit (in Italy it's the equivalent to "Acquaragia") and it comes in a low odour version that it's a bit more bearable (smell-wise). Keep in mind that you are dealing with chemical products so a mask and adequate hand protection is recommended. Other solvents you can use are: toluene, heptane, naphta, lighter fluid, d-limonene, zest-it (this one in particular is rated as "safe" as it is supposed to be extracted from oranges, will have to investigate). In the last few years I came across a very good silicone diluent from Jacobson Chemicals (UK) called "Silicone paint base diluent" (obviously no ingredients on the bottle whatsoever) and it's surprisingly odourless and pleasant to work with. It feels a bit greasy and I was initially worried about its drying residues but I have to say I am hardly using anything else to paint silicone with now. It extends the pot life of your silicone mix but it fully dries and doesn't leave oily residues on the surface.

The thinning ratio varies, I squeeze about a couple of cm of silicone in about 20-30 ml of diluent, when mixed it has the consistence of running honey, I either brush it, sponge it or airbrush it staying away from the cap plastic edges of prosthetics (about 2 mm before the end of the sculpture, some people prefer to stay away 5-6mm). It's fundamental that you leave an even shiny surface avoiding drippings or build-ups. Let dry well, if you wish to blast it with the hairdryer make sure you don't overheat the piece or the cap plastic might melt, especially if it's the IPA based one.

Step 3 - Painting

To paint on silicone is advised to lay on different translucent layers of colours letting the original base to show through, if you cover up using an opaque mix you won't achieve a nice sense of three dimensionality that is peculiar to silicone. These technical notes don't cover the choice of colours, a topic that should be treated on its own (will do).

On silicone you can use either oil paints or acrylic inks or alcohol based paints (Skin Illustrators & co) or silicone pigments. Oils must be mixed to a silicone that allows the paint to stick on the surface. I tend to use the same silicone and diluent that I used for the sealing. Acrylic inks and alcohol paints can be used straight.

Techniques to apply your paints vary a lot, you can dab it on with a sponge, airbrush, flick with a toothbrush (or a cut-off laminating brush), anything you fancy. It's very personal as the choice of colours and will probably take too long to describe the process so I just mention the different ways of doing it.

If you use oil paints you won't need to seal in between layers as long as you let the layers to fully dry. But if you're using inks, it's advisable to do so as they just sit on the surface but don't bond as the mix oil + silicone does.

As I said, make sure your paint is dried between layers to not risk one colour to lift the other. Again, the mix ratio is difficult to establish, you want some body to it, otherwise it will tend to sink into every deep detail, like wrinkles and pores, but at the same time you don't want it to be too thick otherwise it will change the shape of the sculpture creating unpleasant build ups.

What happens if you make mistakes? Most of painting mistakes can be retouched when the paint is still wet, but be careful cause once it's dry it's really difficult to get it off without damaging the piece. Some colours dry darker than what they look like when freshly mixed, so always keep an eye on the paint whilst it's drying as not to have bad surprises. It's advisable to make tests on a reject piece before having a go on the hero one. Also I always test the

silicone of a new tube because I experienced in the past some faulty ones, it's sufficient that you get a little bit out and let it dry to check it actually dries.

Step 4 – Final seal

The mix for the final sealing it's again caulking silicone plus diluent and can have the same density of the one you used at the beginning. I prefer to airbrush this layer because I don't want to risk to lift or shift the paint job with a brushstroke or sponge-stroke.

This sealing layer leaves the surface very shiny. If you don't want this effect there's an amazing way to mat it down: mix some caulking silicone with diluent and some cabosil, the mix should still be clear and not opaque, but with a cloudy white-ish feel to it. The consistency should be like fruit jelly (roughly). You have to brush it or better dab it on with a sponge using a very little amount, almost like a dry brush effect. You will see the surface immediately turning mat and you don't need to build it up. Alternatively you can just use some fine translucent make up powder (such RCMA or others) and then wipe off the excess with a baby wipe once needed. When I am in a rush I even carefully brush straight cabosil, but just if the environment consents me to do it safely and the amount it's imperceptible almost, not at all like using powder).

Additional notes

- If you have to transport your painted pieces make sure they are covered in paper tissue first and then a plastic bag or sheet. It will prevent it to stick to the plastic and it will let some air in between.

- If you're new to the world of painting, there's several painting tools that you will possibly need. In my kit I have got a selection of brushes: flats, rounds, from size 000 to 35 (this measures refer generally to the width or diameter in mm), cheap laminating brushes from size ½ inch to 2 inches, several different sponges (cheap polyfoam, sea sponges, makeup sponges with different textures), few airbrushes: Iwata TR-1 double action airbrush with trigger, Paasche H single action, compressor of course, and other little tools like stencils, spritz bottles, and so on.

What is funny is that it happened me more than once that I only used 3-4 brushes and an airbrush. I guess is the same as sculpting, everyone buy or make many little tools but then use just those 3-4 favourites 😊

- If you are painting on a Super Baldiez encapsulated piece (alcohol based cap plastic) you can use alcohol based colours (Skin Illustrators & similar) without sealing before or after because the alcohol bites into the cap material re-activating it and making the paint to bond. Downside is that if you make a mistake...well..there's no way back.

Hope you enjoyed my notes.

More to come.

Val