

Print or paint?

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Painting is not my favourite past time, I tend to use rattle cans nowadays mixed at my local automotive paint shop. To do this I need to provide them with the original manufacturer's code for the colour I require. This is not too difficult, I use one of the model railway websites. Kinross is a good one to get the colour, then classic car sites to convert that into the paint code. For instance BR mineral grey is shown as the VW colour Eis Gruen which is VW code A6E. After that it is just a case of a coat of adhesion aid if painting plastics or nonferrous metal, etch primer and then two top coats. All done in a few hours. However occasionally there is an area where the above is not possible and then printing onto waterslide or vinyl becomes a practical proposition.

First I have to say I only have experience of using a laser printer, inkjet I have no experience with at all. However there are inkjet versions of all the papers I have used. The process is the same for all the variants. I tend to use my CAD package to produce the print file but any drawing package will do, even Word if it will do what you want. The advantage to me of CAD is the part I am wanting to paint is normally already in CAD format so it is easy to insert another layer and put the paint requirements on that. As an example I am going to show how I did the rear of the cab on my class 08.

The 08 is 3D printed and I have to thank Peter Davis for allowing us to use the stl files which are available on the Gauge 1 3D forum. It went together really well and runs effortlessly. The level of detail is very good but the rear of the cab gave me some concerns, there was no way I could paint that area to a suitable standard. The solution is to use either a water slide or a vinyl print.

The first stage was to reverse engineer the rear of the cab in CAD. The only way I found to do this was to import the stl file into my CAD package and then trace round the cut edges. This gave me the outline and the window openings but not the lights or conduit: - to get these I used a Vernier. Eventually I had the back of the cab on the screen. From images of the 08 the cross hatching was drawn. Fortunately it is only black and yellow so I didn't have to match any colours. That would not have been possible for me anyway as I am colour blind. The areas where the windows, lights and conduit were had to be cut out so these were left in white. The next decision was what medium to use for the print surface.

Waterslide is available in clear and white. Clear I find does not work well as the backing colour you are putting the slide onto comes through, therefore I have tended to use white. The slide prints as normal with the printer set to Glossy in the settings. Most suppliers of waterslide have recommended settings on their website, if not you just have to print and hope it comes out OK. After cutting out the white sections of the print the procedure is just the same as normal waterslide, soak in water, put onto the model ensuring all the bubbles have been squeezed out and dry.

Vinyl is very similar except it has adhesive on the back. The issue I had with the vinyl was the print tended to come off very easily. In fact whilst cutting the white sections out my steel rule was rubbing away some of the black. To give the print some protection I used a car lacquer spray, again from my local automotive paint shop. My concern was that it would destroy the print but it did not, just the opposite it gave excellent protection. Cutting out the white sections is very easy, you just need a sharp modelling knife and a steady hand. It is only necessary to go through the vinyl not the vinyl and the backing paper, two light cuts and the vinyl was through. Placing the vinyl in the correct position was fairly easy given the two straight edges, the conduits and the window openings. Finally the edge was trimmed with a sharp knife.

I used both waterslide and vinyl as an experiment but I feel that vinyl is the easier to use and it is the one I ended up with on the model. Obviously you can use any colour and any shape, you just have to ensure the shade is what you require and that the printer prints at a scale of 1:1. The limiting factors are you really need a flat surface for the print to sit on and the size you can print. My printer will print 295mm x1,200mm so plenty big enough for most situations. The problem is getting vinyl suitable for a laser printer in this size. Sign makers appear to use a solvent or inkjet type printer not a laser. A3 vinyl is available for laser printing and I have found another company that advertise "laser printable paper suitable for signs - marine use" in larger sizes which are supposed to be almost indestructible but I have yet to try these out.

