



Scale Tips & Techniques

Creating Your Own Paint Masks



How often have you been wrapping up your model, only to realize you want to add that one extra special marking? Or you have identified a marking that is repeated numerous time around your model? The good news is there are a small handful of companies that can create custom markings for you. Be it in the form of paint masks, water slide decals, or dry transfer rub-ons. The drawback besides the potential cost, is that there is usually a significant wait time after you place and order, and in most cases, you can't be 100% sure the sizing will meet your requirements.

So, what if I told you that there was a way to create the exact size markings you require, down to the smallest accurate detail, in the convenience of your own home? Pretty appealing right?

The intent of this article isn't to go into the pros and cons of various marking or masking methods, rather to demonstrate one particular method that you may wish to experiment with.

Some of you may be familiar with the process of screen printing, or silk screening, and that is essentially the strategy we are going to use here. With the difference being, instead of squeegeeing the paint onto the surface we are going to spray paint it.

Screen printing is a printing technique whereby a mesh is used to transfer ink onto a substrate, except in areas made impermeable to the ink by a blocking stencil. Originating over 1,000 years ago in China, its most commonly used today by artists and companies that put images/logos, etc. on to fabric such as t-shirts. Essentially, ink or paint is dragged across a stencil and anywhere that is open through the stencil it will allow the paint to pass. The impermeable areas are held in tact across a thread mesh. Traditionally the process was called screen printing or silkscreen printing because silk was used in the process prior to the invention of polyester mesh. Currently, synthetic threads are commonly used in the screen printing process, with the most popular mesh in general use being made of polyester.

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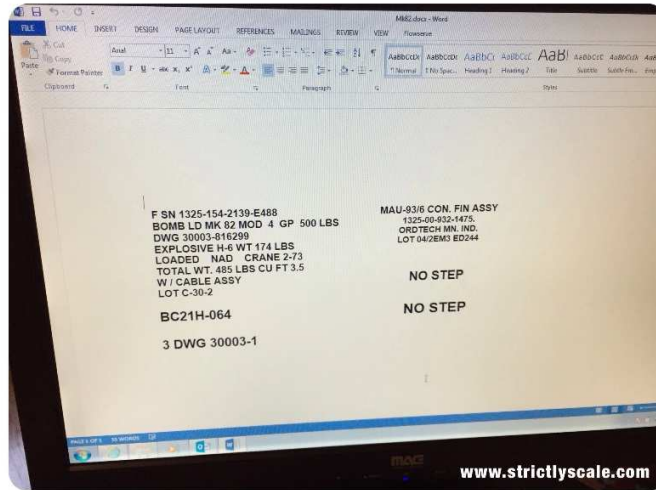
So instead of more theory, let's see how we can create paint masks from this silkscreen material. The emulsion material I use comes from a company called EZ-Screenprint in California. A link to their website is below, and a lot more information can be found on their site and in their videos. I won't go through all the details because EZ-screenprint provide detailed instructions with the emulsion sheets. I'll summarize the basic steps so you can get a flavor for the process and decide if it's of interest. While it may look complicated, with practice it really isn't difficult.



The subject for this demonstration will be some Mk 82 bombs in 1/6 scale, a cluster of three each will go under both wings on my F-16. The bombs come unfinished and unassembled from Details4Scale. Doing some research and looking at photos of real Mk 82's it was evident that there were specification markings painted on the sides of each bomb. As this is repeated on both sides of the bomb I need to paint this marking 12 times. See above images for an example I used to create the marking.

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First step was to recreate the marking on my home computer. Nothing fancy, I used Microsoft word to type in the text and did a couple test prints on plain paper until I was satisfied with the size and appearance.



Once I was happy with the results I printed the text on to a single clear transparency. Your local office supply should sell these, or you can even have them print your file for you. The image needs to be in solid **BLACK** and printed on the best setting using a laser or ink jet printer. I used my home ink jet printer.

After the ink has had time to dry, and working in a dimly lit room, place it face up on a piece of clear plastic. This is part of the exposure board and is available from EZ-screenprint if you don't have one.

Cut a piece of the emulsion screen to size and move to the next step. Important, keep the new unused sheets of screen sealed in the black envelopes. You don't want this to be exposed to any light before you are ready.

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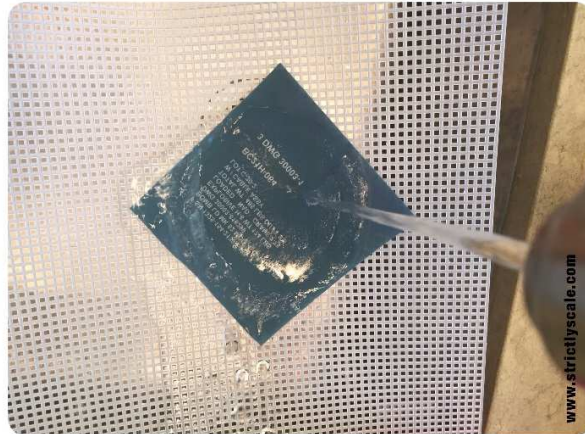
After peeling off the clear protective film from the screen, place the green screen shiny side face down over your artwork. Note EZ-screenprint sell a standard screen and a hiDef screen, the steps are the same for both. I used the hiDef screen due to the nature of the detail I wanted to capture.



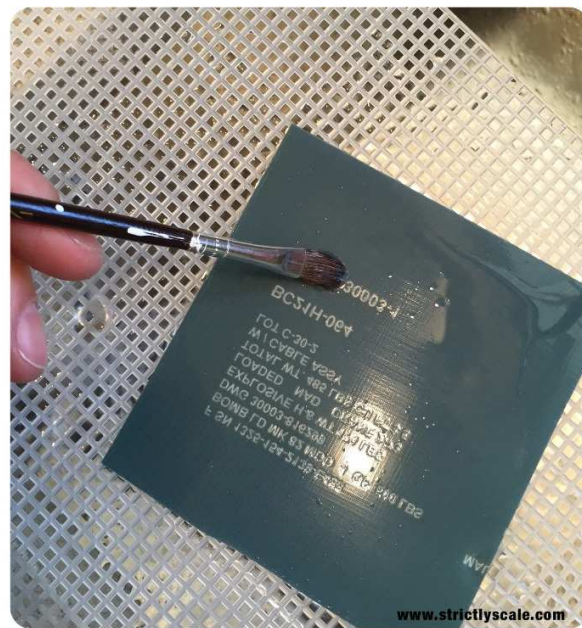
Then firmly clamp the black backing board to the clear, sandwiching the film and your artwork in between. Make sure the clips don't cover the artwork and it's very important to keep the board covered and dark before and after exposing the board to the sun. If it gets overexposed the film won't turn out useable.

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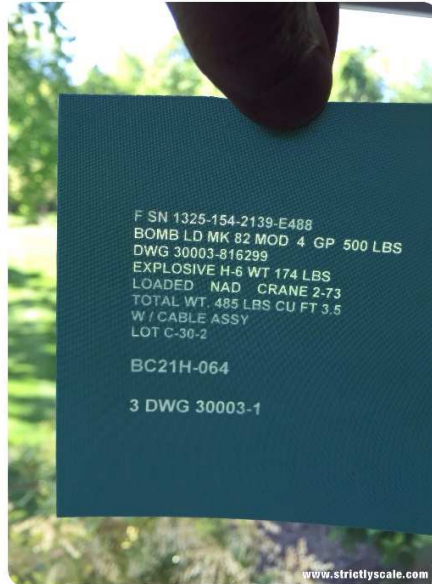
Place the stencil on a plastic screen and gently rinse the film on both sides under a slow running tap or kitchen sprayer. Take more care on the emulsion side to avoid damaging it.



If needed a soft brush can used to clean off some of the green residue from the film. Work carefully and patiently.

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Hold the stencil up to light and check for any residue left. You will be able to see clearly through the areas where your artwork transparency had covered the film. It appear clear at first glance but look closely to ensure all the residue is removed. Any residue will prevent anything from passing through when you go to paint.



Pat the stencil dry on a piece of clean paper towel emulsion side up to remove excess moisture. Then leave it exposed to light for at least another 10 minutes and let it completely dry before use.

You are now ready to use it to paint!!

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Hold the stencil down tight to the surface with low tack masking tape.



Next carefully spray over the stencil. The paint will only pass through the open areas of the film. In this case I'm used Testors Model Master enamel sprayed through an airbrush. This photo provides a good reference for how small and detailed the marking can be.

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While the paint is still wet, carefully lift off the mask. I like to do this in one motion to avoid smearing the wet paint.



The film is resistant to water and to solvents so it can be cleaned immediately after spraying. I use acetone to wipe the enamel off the film as it does an effective job and evaporates quickly so the film can be used right away.



An example of the text that was revealed upon removing the stencil. Not only is the stencil reusable, but by actually painting the markings on you achieve a very realistic result. Certainly better than using vinyl graphics or water slide markings, etc.

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The final result of my completed Mk 82 bombs and TER's (triple ejector racks) for my 1/6 scale F-16. While a small part of the overall component, the text adds an authentic touch of realism to these scale parts, and using this technique I hope you can also realize similar results.

Thanks for your interest and supporting Strictly Scale by downloading this article.

Links:

EZ Screenprint: <http://ezscreenprint.com/>

Details4Scale: www.details4scale.com