



HOW TO PAINT A SHERMAN FIREFLY TANK

VICTRIX GAMES

COLOR CHART

OLIVE DRAB SSC 15

Olive drab SSC 15 + black

Olive drab SSC 15 (A.MIG-0112)

Olive drab SSC 15 + buff

CHIPPING EFFECTS

Olive drab SSC 15 + buff

Chipping (A.MIG-044)

TRACKS AND ACCESORIES

Lightbrown (AMMOF-531)

Gun Metal (A.MIG-0045)

Grey light brown (AMMOF-521)

Black Templar (Citadel Contrast)

White (AMMOF-501)

WEATHERING

FILTER AND WASH

Brown filter (A.MIG-1506)

Dark Brown wash (A.MIG-1005)

DUST EFFECTS (SHADERS)

Dirt shader (A.MIG-0853)

Earth shader (A.MIG-0852)

STREAKING AND DIRT EFFECTS

Sludge oil brush (A.MIG-3532)

Rust oil brush (A.MIG-3510)

Earth clay (A.MIG-3524)

DUST EFFECTS (PIGMENTS)

European earth (A.MIG-3004)

Dark earth (A.MIG-3007)

Medium rust (A.MIG-3005)

PAINTS

Before starting with the painting guide, it is important to say a few words about the different types of paints we can use on our models. Most wargamers use acrylic paints, which are thinned with water and dry in seconds. However, some weathering effects are easily done with other types of paint, enamels or oils. In contrast with acrylic paints, these are thinned with a specific thinner such as White Spirit or turpentine, and cure in hours. This means that during this drying time we have the possibility to play with the “wet” paint to create different effects, as you will see later. Indeed, we can even remove the enamel/oil totally. Note that it is not about replacing acrylic paints with enamels/oils, but about combining all.



Legend:

Acrylic paint

Enamel/oil based paint

ACRYLIC AND ENAMEL / OIL PAINTS

ACRYLIC PAINTS

- Thinned in water
- Brush cleaned with water
- Dry in seconds
- Once it is dry, it is impossible to wipe it away

VS

ENAMEL / OIL PAINTS

- Thinned in White Spirit or similar
- Brush cleaned with thinner
- Dry in hours
- After hours, it is still possible to wipe it away

STEP 1 – PRIMER COAT

It is very important to carefully remove all the casting lines and flashes from the models using a hobby knife and files. If not removed, these defects can hamper the final result. Then, using plastic glue (avoid cyanoacrylate!), we put together the different parts of the model. Once it is totally dry, we can proceed with the primer or undercoat. I prefer to apply it using the airbrush or spray given that the resulting layer will be thin and homogeneous. With a normal brush, we can apply too much paint so that we cover accidentally some details, or can even create weird textures due to the brush strokes. Here I apply couple of thin layers of the grey spray from AMMO. I normally use grey because it is a good foundation for any other colour. However, you can use a spray closer to your colour of interest. For example, in the AMMO range of sprays we can find a specific colour for olive green. When using a spray remember to do it outside and spray the paint around 30 cm away from the model. Do not skip this step. The primer is extremely important when we are planning to use our miniatures to play, which means that the miniature is going to be handled constantly. And even more important, some weathering effects are a very aggressive and if we do not have a proper foundation, we can accidentally remove the paint.



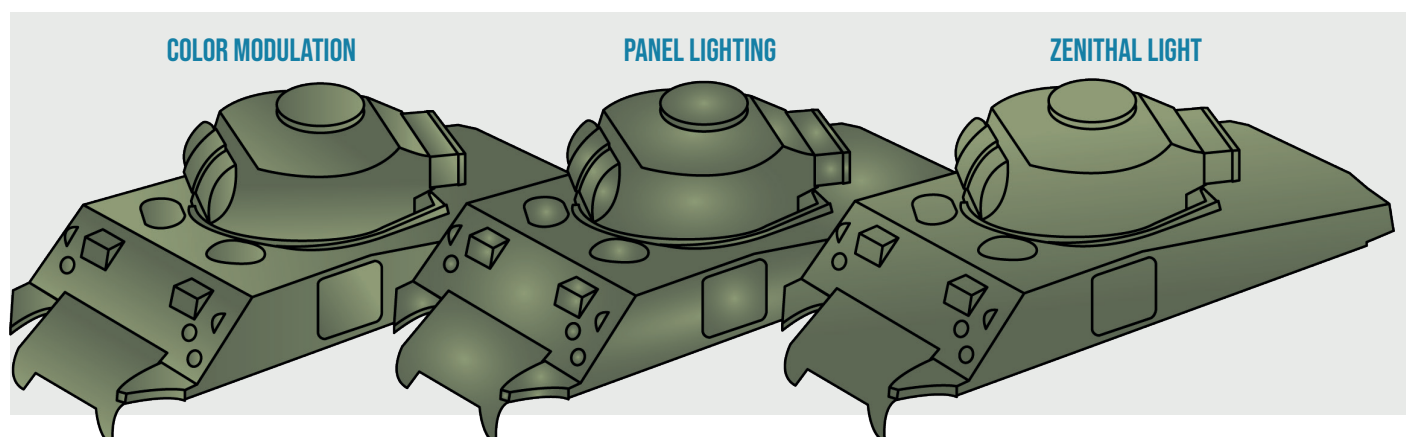
Spray a thin layer of primer over the tanks.

STEP 2 – BRITISH SSC 15 OLIVE DRAB

To paint the typical green colour of British tanks, British olive drab, I used an acrylic paint from AMMO, Olive drab SSC 15 (A.MIG-0112). This is the “real” colour. That is, the colour that we could see if a real tank is in front of our eyes. However, when painting tiny models, where the surfaces are very small, we need to trick the eyes. We cannot simply use the real colour because it will look very dark and flat. Note that the small objects reflect a very small amount

of light, and therefore, the colour will look much darker than when applied onto bigger objects. That is why it is very important to apply shades and lights, and not just the real colour. We need to create the effect of volume. There are different options for highlighting scale models, including zenithal lightning, panning or colour modulation (and probably, many others). The easiest option is to apply a zenithal light, were we interpret the light as coming from a single source (the sun). Therefore, we only

LIGHTNING STYLES



need to apply the highlight on the upper part of the tank, for example. However, I personally find more interesting the colour modulation. In this other method, rather than a single source of light, we take into account many. This means that each panel can have its own shades and lights. The maximal effect following this method is achieved when we place the shade of one panel close to the light of an adjacent panel. In this way, the generate a very interesting and attractive contrast. As you can imagine, this method is unreal. However, this is about bringing our tiny scale models to life and make them interesting.

Colour modulation is easily applied with an airbrush. If you do not have one, forget about shades and lights at this step, and simply paint the whole tank with the base colour (in this case, olive drab base). However, it might be advisable for you to acquire an airbrush. It is not that expensive as many people think (for 100-200eur you can easily get a decent set of airbrush and air compressor), and it is very easy to use. Do not be afraid! Furthermore, nowadays there are thousands of tutorials and videos about how to use an airbrush, and therefore, if you have any trouble you can quickly find the solution. The airbrush will make your painting life much easier, since you can create nice transition between colours in a very short time. And for painting tanks, it is almost a "must". My bedside airbrush is a Renegade Krome from Badger with a 0.22 mm needle, and I normally use 2 bars of pressure (60 psi). I have a regular air compressor with a tank from Amazon, which ensures a constant supply of air.

It is very important to thin your acrylic paints when using the airbrush. Although you can use plain water, it is advisable to use the corresponding thinner from the same brand of paints. Acrylic thinners are water plus a few chemicals, such as detergents, that improve the fluidity of the paint. Some paints are already prepared to be used with the airbrush directly from the jar. However, I still prefer to dilute them with a little bit of thinner. The idea is that I find easier to work with semi-transparent layers. Even though this means that you need to apply several layers to cover the surface, it also facilitates the creation of colour gradients. You can play with the number of layers to change the intensity of the colour.

Regarding the colours, we only have the real or base colour Olive drab SSC 15 (A.MIG-0112). To create the shade, we can mix it with black (50%/50%); and for the highlight, with increasing amounts of white or buff. I prefer the buff colour when highlight olive drab because the white desaturates too much the green (it becomes grey). After thinning the paint with a little bit of acrylic thinner, I started airbrushing the shade colour over the whole vehicle. I applied two layers to ensure that everything was homogeneously covered. Next, I applied the real or base colour followed by the highlights in each panel. That is, I progressively went from the darkest colour to the lightest one. When painting the colour modulation try to not totally cover the previous colours or the gradient effect will be lost. Simply reduce the area you are painting with each new layer. To create sharp contrasts



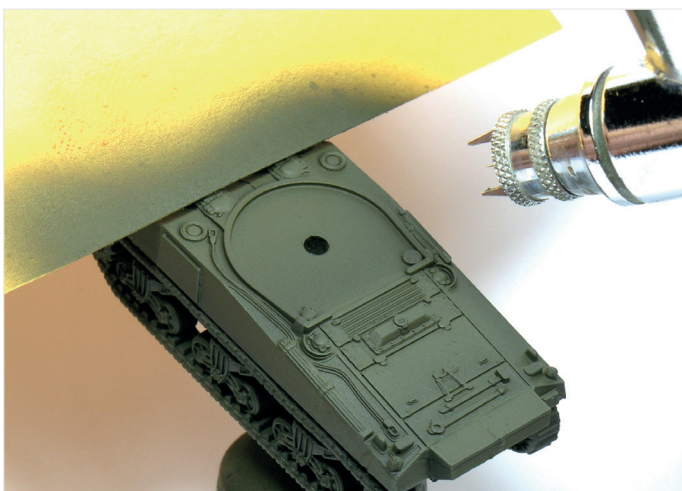
between panels we can mask the adjacent panels with a piece of paper or masking tape. Masks are essential to work one panel at a time. Do not worry if this is not perfect, 1:144 scale models are very small and this method is challenging. Just try to get good looking contrasts! I applied three layers with the airbrush with increasing amounts of buff mixed with green (25 and 50%, for

example). The last highlight for the colour modulation is applied with a regular brush. We can add a little bit more buff paint to the last mix (for a final 75%) and then paint the small details such as rivets, hatches, etc. Once again, the goal is to create contrast.

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The last highlight in colour modulation is done with a brush using olive drab + buff (25%/75%), and we paint the small details.



You can use a piece of paper to paint some panels individually.



Masking tape is very useful to paint small panels.

STEP 3 – DETAILS, DECALS AND SEAL

Next, we continue using acrylic paints to paint the small details and tracks. For the tracks, I normally use grey brown or beige colour, such as Track primer (304, Vallejo) or Grey light brown (AMMOF-521). For the wooden parts of the tools, I used . And for the metallic parts and the rubber of the wheels, I used the black Contrast colour (Citadel), Black Templar. Due to its fluidity, it is very easy to paint these small details. Note that I did not use any metallic colour here, although you could use it to paint the tools and machine gun. I will use a graphite pencil later, as you will see. You can also use white to paint the typical undulated pattern on the cannon.

Furthermore, now is the moment to add decals as they will be weathered along with the rest of the vehicle. To avoid the icing effect of the decals (the white marks that sometimes appear) you can follow this protocol: (1) when cutting the decals from the sheet, try to remove as much as you can the transparent area. (2) Apply a thin layer of glossy varnish –preferably with the air-

brush- over the surface where you want to apply the transfer. The glossy varnish will create an ultra-flat surface (that is why it is glossy!), which will ensure a perfect adaptation of the decal. (3) Soak the decal in water until the paper part is separated, and then use a brush to place the decal on the tank. Remove first the excess of water using a piece of paper. (4) Use specific products to adapt perfectly the decal onto the surface. I normally use first the Ultra Decal Set (A.MIG-2029) to secure it, and then Ultra Decal Fix (A.MIG-2030) to conform it onto the surface. The latter is very important in irregular surfaces, for example, with rivets or other details. (5) Once the fixing product is dry, airbrush a layer of satin varnish on top.

Finally, before starting with the weathering effects done with oils and enamels is extremely important to protect and seal what we have done so far: apply couple of layers of satin varnish with the airbrush covering every part of the vehicle. This can be done at the same time when sealing the decals in the previous step.



Paint the tracks, etc. with acrylic paints and apply the decals.



Apply couple of layers of satin varnish to protect the paint.



STEP 4 - FILTER

We can start our weathering effects by applying a filter. A filter consists in a very thinned paint that serves to slightly change the colour of the surface. We will use an enamel for this. Note that this step is not compulsory and it depends on what you want to simulate. For example, a filter can be used to create a faint dust effect by using a light brown colour. Or, if we used too much white for the highlights of the olive drab -so that the green colour is lost and looks like greyish- we can apply a green filter. Filters will also serve to harmonize a little bit the different colours or tones of the same colour we have on the tank, which is specially important to compensate the exaggerated effect of colour modulation.

For example, here I wanted to simulate a dust or dirt effect and I used a medium brown enamel filter, such as Brown for Desert yellow (A.MIG-1504). AMMO has several ready-to-use filters, although you can always prepare your own filter by mixing the corresponding enamel or oil with white spirit using a 1:10 dilution (one drop of paint and nine of thinner). To apply a filter, first discharge the most part of the paint on a piece of paper and then extend the left overs over the tank. As you can see, we apply a very small amount of paint. This is not a wash and we do not want to accumulate the paint on the recesses, but we want to extend a very thin layer over the surface.



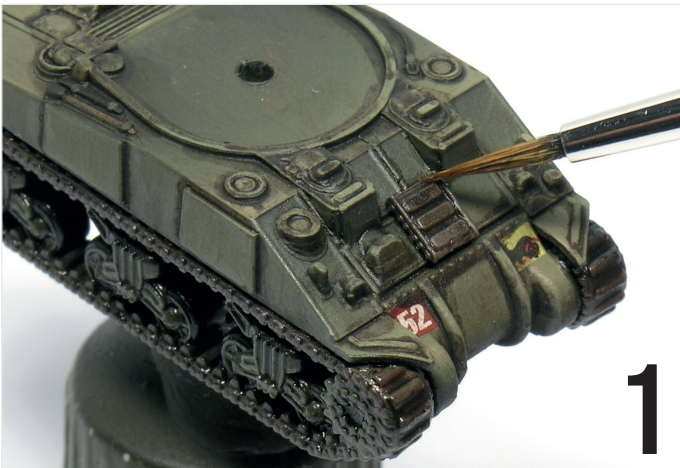
Apply a filter to recover a little bit the olive drab and to harmonize the different tones of the colour modulation.

STEP 5 - WASH

Next step is the wash. Washes, compared with filters, are more concentrated paints (1:5) and serves to remark all the recesses of the tank. Probably many of you are familiarized with acrylic washes or shades. Enamel washes work pretty much in the same way. However, we do not want to apply the wash all over the tank. Instead, we want to carefully add it only on the recesses. This is what we call pin-wash. The great advantage of enamel washes over acrylic ones is the curing time. Enamels dry in hours, and therefore we can remove the excess easily to achieve a clean and nicely defined scale model.

Here I used another product from AMMO, the wash Dark Brown for Green Vehicles (A.MIG-1005). Otherwise, you can prepare your wash by mixing the corresponding enamels or oils

with thinner using a 1:5 dilution (one part of paint and four of thinner). I personally like the ready-made products because I save a lot of time and the colour is consistent between painting batches. After shaking the bottle, with a thin brush we apply carefully the wash exclusively on the recesses. Do not worry if by accident you apply too much! That is precisely the biggest advantage of the enamels: after one hour or so, once the wash does not look wet, we can use a cotton swab or a brush moistened with white spirit or turpentine to carefully remove the excess of the wash. By doing this, we will conserve the wash exclusively on the recesses. Sometimes we remove too much enamel from the recesses, or in fact some recesses are not deep enough. In these cases, we can use a thin brush and a dark brown acrylic paint (such as Dark oxide 302, Vallejo) to carefully do the outlining,



Apply the wash exclusively in the recesses.



Remove the excess of wash with a brush moistened with thinner.

STEP 6 - CHIPPING EFFECTS

Next, we will paint the chipping effects. Here we will use acrylic paints again. The idea of this effect is to resemble scratches, impacts or simply some areas where the paint wore off. I apply these effects in two steps. First, I use a light colour (normally the same colour I used for the final highlight in the colour modulation step) to represent superficial scratches. Second, I use a dark colour, such as Chipping (A.MIG-044), to represent deeper effect where the bare metal is exposed. We apply the dark colour inside or around the light chipping effects. However, do not cover all the light ones! Combine superficial and deep effects here and there. I normally use a

thin brush to paint these effects given that with the brush we can easily control where and how big the chipping effects are. The sponge technique, which is used to create random chipping effects by applying the paint with a piece of foam or sponge, is very useful and rapid. However, with the sponge we loss part of the control; and according to my experience, we end up adding too many chipping effects. On the other hand, do not apply chipping effects all around the vehicle. Focus only on the more logic places, such as the hatches, some edges, sides where the crew climb the tank, etc. This is one of the most difficult weathering effects because it is difficult to find the balance.



First, use the light colour to create superficial scratches.



Second, use the dark brown colour to simulate bared metal.

STEP 7 - DUST EFFECTS

In order to create an initial layer of dust, I decided to try a new product I have never used before, a Shader. This can be considered as an acrylic paint and it should be airbrushed. Shaders somehow work as filters, so that we can apply a very thin layer to change the colour of the surface in a desired way. The more layers we apply, the more intense will be the colour change. Although Shaders are acrylic based paint, we should let them cure several hours. However, we can speed up the process by applying a thin layer of matt varnish. That is, (1) first airbrush the Shader; (2) wait a few minutes; (3) apply a layer of matt varnish, and (4) then again apply a new layer of Shader. And ad infinitum.

In my case I wanted to resemble dust, and therefore, I picked two brown Shaders, Dirt (A.MIG-0853) and Earth (A.MIG-0852). I started by airbrushing one layer of Earth, the lightest colour, in the lower part of the tank and tracks. I insisted more in some areas to create some contrast. Then, after 5 minutes, I sealed this Shader with a thin layer of matt varnish applied with the airbrush. Finally, I repeated the same process using the darker Shader, Dirt, which was applied randomly on the same areas. Try to create different tones in different areas to enrich the final result. Finally, I applied another layer of matt varnish to protect everything from the next step (enamels).



Create an initial layer of dust by airbrushing brown Shaders on the lower part of the tank.

STEP 8 - STREAKING AND DIRT EFFECTS

We will use oils to create streaking and dirt effects. We will split the work in two phases: first we will create streaking effects on vertical and inclined surfaces (where we are expecting to find this type of effect). And then, we will use the same colours to create dirt and dust accumulation on horizontal surfaces. The colours choice will depend on what you want to represent and which is the colour of the surface. That is, for dust effects we can pick light brown and ochre colours.

However, these colours will not be very visible on a Panzer tank painted in dunkelgelb. Therefore, in this situation we might think about adding some additional colour, such as medium brown or red brown, to enrich the effect and gain contrast. As you can see, it is not only about realism, but also about impressionism. In our particular case, any light brown colour will nicely stand out over the dark green surface of the Firefly tank. You can use either enamels or oils. AMMO has a specific range of thinned



Paint vertical lines with different oils.



Blend the oils with a brush moistened with white spirit.

enamel products for streaking effects, which can be used directly from the jar. However, here I wanted to follow a more traditional way and I used oils. I picked four different colours: Rust (A.MIG-3510), Sludge (A.MIG-3532), Earth (A.MIG-3514) and Dusty earth (A.MIG-3523), which are red, dark brown, medium brown and light brown respectively. My idea was to focus on dust effects (= brown), whereas the red colour will give a little bit of variation and contrast.

The streaking effects on vertical surfaces are applied in two steps: first, we paint thin vertical lines using a thin brush, starting from the upper part of the panel or from small details such as a rivet or chipping effects. Second, after waiting a few minutes, using a flat brush moistened with White Spirit we blend the oils applying vertical brush strokes, from the top to the bottom. When doing

this we normally remove the most part of the paint. It is normal. If you wish, you can repeat this process several times to create a more complex effect. However, these effects should be subtle. To create points of interest you can paint here and there a more intense streaking effect by carefully blending the oil with a thin rounded brush.

To create accumulation of dirt or dust on horizontal surfaces, first we apply a little bit of oil on the desired area directly from the bottle or thinned with a little bit of white spirit for a fainter effect. Then, with a rounded brush and white spirit we blend it. It is not about removing the oil, but about extending it over the desired area. This method is very useful to create different points of interest by working on some particular spots, such as the corner of the turret, rather than covering the whole vehicle.

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Using the same oils, create different points of interest in some horizontal panels. For example, add a red tone in a corner.

STEP 10 - TRACKS

To enhance the dust effects on the tracks and lower part of the tank we can also use pigments. These are sold normally as powder and we have several options to use them. You can either directly sprinkle the powder on the tracks using an old brush. Or you can “thin” the pigments with white spirit (50%/50%) to create some kind of wash. Then, you apply the wash on the desired places, such as the tracks and lower part of the tank, and wait until the white spirit is totally

evaporated. This can take hours, and I normally let it dry overnight. Next day, using an old brush or a cotton swab we remove the excess of pigment. In this way, the pigment will accumulate only on the recesses, but it will still create a dusty effect on the surfaces where we applied it.

Note that there is a specific product called “pigment fixer”. This can replace the white spirit when thinning the pigment, and the

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Apply the mixture of dry pigments in the lower part of the tank using an old brush.

idea is that once it is dry or evaporated, the pigment is “glued” in that place. This is perfect to increase the durability of this effect. However, this means that if you use pigment fixer, you CANNOT remove the excess of pigment next day. Still, if you want to protect the pigments using this product what you can do is to apply the pigment fixer once you are done with the dust effects. That is, once you have removed the excess of pigment, you can apply carefully the pigment fixer on top using the tip of the brush or a

plastic pipette.

For these effects, I prepared a mix of several pigments to create more interesting tones, including Dark earth (A.MIG-3007), Europe earth (A.MIG-3004) and a little bit of Medium rust (A.MIG-3005). Then I applied some dry powder on the lower part of the tank, whereas I used the “wet” method to create the dust effect on the tracks.



1 Apply the pigments mixed with white spirit on the tracks.



2 Once it is dry, remove the excess of pigment with an old brush.

STEP 10 – FINAL TOUCHES

To finish the tank, we can paint some additional details, such as the crew members or some stowage. For this I used acrylic paints. To create the metal shine on the tracks, tools and machine gun I used a graphite pencil. I carefully

applied the pencil around the edges of these elements. Do not press much or you can remove the paint! You can also add aerials using nickel rods and then paint them with black.



Use a graphite pencil to create the metal shine on the tracks.



Paint the rest of details of the tank with acrylic paints.

GALLERY

