HOW TO PAINT A BITONAL CAMOUFLAGE ON A STUG III

VICTRIX GAMES

COLOR CHART

Camouflage

DARK YELLOW

- Dark base (A.MIG-901)
- Base (A.MIG-902)
- Light base (A.MIG-903)
- Highlights (A.MIG-904)

GREEN

- Olivgrün base (A.MIG-916)

Tracks

- Dark tracks (A.MIG-035)
- Graphite pencil

Accesories

- Black Templar (Citadel Contrast)
- Oily steel (865, Vallejo)
- Flat brown (984, Vallejo)

Legend:
Acrylic paint
Enamel/oil based paint

Weathering

FILTER

- Tan for 3 Tone Camo (A. MIG-1510

WASH

- Dark Brown for Green Vehicles (A.MIG-1005)

CHIPPING EFFECTS

- Chipping (A.MIG-044)
- Highlights (A.MIG-904)

RUST AND DIRT EFFECTS

- Streaking rust (A.MIG-1204
- Streaking grime (A.MIG-1203)
- Streaking grime for interiors (A.MIG-1200
- Rust oil brush (A.MIG-3510)
- Yellow oil brush (A.MIG-3502)

DUST EFFECTS (PIGMENTS)

- European earth (A.MIG-3004)
- Medium rust (A.MIG-3005)

PAINTS

Before starting to explain how to paint our tiny models it is important to say a few words about the different types of paints that we are going to use. Most wargamers usually use acrylic paints, such as Vallejo, Citadel, etc. These are very easy to use and the brush is quickly cleaned with water. However, to create the weathering effects we need to use another type of paints: enamels and oils. These require a specific thinner and they are used differently. You can find the main differences between both types of paints in the following boxes. I will keep the same color code in the painting guide. All my enamel / oil paints for weathering effects are from AMMO of Mig Jimenez.

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

After removing the cast flashes and lines with a modelling knife and files, we put together the different pieces with plastic glue. Once it is dry, we apply the primer coat. This step is extremely important, since it will facilitate the application of the paint in the following steps and it will also increase its durability. I prefer to apply the primer coat using an airbrush or spray to create a thin and homogeneous layer. The brush can accidentally create strange textures because of the brush strokes; or even worst, a thick layer can cover small details. Regarding the color, I normally use grey color because it is nicely covered by any color. I usually let it sit overnight.

The primer should cure for a few hours or even overnight.

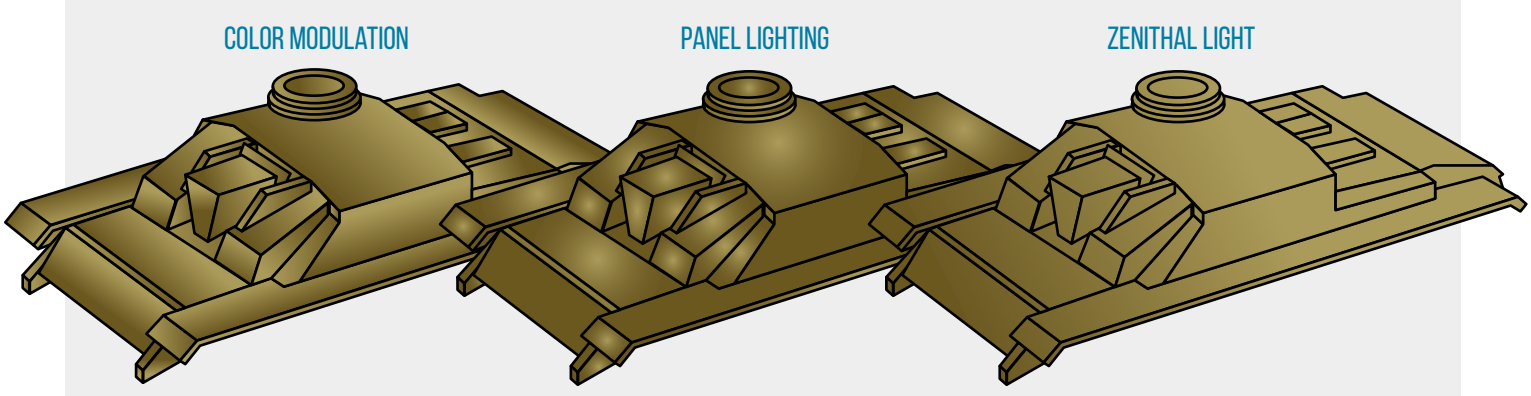
STEP 2 – DUNKELGELB (DARK YELLOW)

Next, we will paint the camouflage. Or a flat color. It is advisable to do a little bit of research when panting a historical miniature and find out which are the right colors to paint it. Think about where you want to place the tank, and then look for information regarding the camouflages used in that theatre of operations. In my case, I decided to paint a typical camouflage of 1944: a dark yellow base (dunkelgelb) with green serpentines.

To paint the camouflage, I always use an airbrush. My bedside airbrush is a Renegade Krome from Badger with a 0.2mm needle. I normally use 2 bars as a rule of thumb, although in some cases I go up to 3 bars. However, this might change depending on how is the atmospheric pressure in the place where you are living. Remember that is very important to thin any paint you use for the airbrush with the corresponding thinner. Although nowadays there are many brands that offer paints ready-to-use for the airbrush, I still prefer thin them a little bit. I like to do it so because then I can play with the intensity of the layer. I mean, a semi-transparent layer does not cover completely the surface. Therefore, I can play around with the number of layers to make the color opaquer. This facilitates the generation of smooth transitions.

When painting a camouflage, I usually start with the dominant color: the color that covers the largest surface. In this case, it is the dark yellow. There are different options to paint and apply the highlights in scale models. The most classical method is the zenithal light, where we assume a single focus of light hitting the model. But there are other options, such as panelling, pre-shading or color modulation. I personally find the later the best option when painting small tanks like this. The contrast –the difference between the lightest and darkest tone of a color- generated by the color modulation is very striking, and it facilitates to bring

LIGHTNING STYLES



these tiny models to life. The problem of small models is that their surfaces are small, and therefore, the amount of reflected light is also very small. This means that small objects look darker than big counterparts even if they have the same color. To overcome this problem, the color modulation will force the contrast. This method is very unreal and reminds a 3D render, but it is perfect to make our tiny model more striking.

In the color modulation we paint each panel or surface separately with its own set of shades and highlights. And the idea is to combine the highlight of one panel with the shade of an adjacent one. To achieve this, we can use different types of mask –such as a piece paper, masking tape or Blu-Tack- to cover the adjacent panels so that we can work one surface at a time to create the contrasts. This method in 1:144 models is a little bit challenging. However, it does not have to be perfect. We do not need perfect lines and transitions. Therefore, do not worry and just try to get some nice contrast in the tiny panels.

To paint the German dark yellow, I like to use the color modulation set from AMMO of Mig Jimenez, which includes 5 progressive colors. With this set we do not need to mix anything. We can use directly the color from the bottle. For these tiny tanks I airbrushed three colors of the set: dark base (A.MIG-901), base (A.MIG-902) and light base (A.MIG-903). I started with the darkest and then continued with the base and light. The final highlight is not done with the airbrush, but with a normal brush. Using the lightest color (A.MIG-904) I painted small details such as hatches, rivets, edges and so forth.

To create nice contrasts between panels is advisable to use masks (i.e. masking tape, paper, Blu-Tack, etc).

STEP 3 – GREEN CAMOUFLAGE

We can choose between two different types of camouflage: soft or hard edges patterns. The former implies a smooth transition between colors, while in the latter there is a clear separation between the camouflage colors. In my case, I decided to paint a soft-edge pattern with green serpentines. Given the small size of this scale models, to paint the green serpentines we need to increase the accuracy of the airbrush. This can be done by increasing the pressure of the air compressor to 3-4 bars and by thinning the paint a little bit more.

Remember to check first how it works on a piece of paper. Never start straight away on the model! For the green I used another paint from AMMO, olivgrün base (A.MIG-916). I also applied balkan cross decals using the specific products to apply and soften decals, Micro Sol and Micro Set.

Transfers are applied before the weathering effects, so that they will be treated in the same way as the rest of the tank.

STEP 4 – DETAILS

We continue with a normal brush and acrylic paints. Now, we are going to paint the accessories and other details of the model. For example, with black we paint the rubber of the wheels and with steel we paint the tools and steel cable. I found quite easy to use the black paint from the new range Contrast from Citadel (Black Templar) to paint the tires. For the tracks, I like to use a dark grey or brown color, such as Dark tracks (A.MIG-035), to paint the tracks.

In addition, we can apply decals or stencils. In my case, I put Balkan cross decals on the tank sides and side skirts (schurzën). To apply them, first we cut them from the sheet and put them in water. After a few minutes, they will detach. Then, we use a brush to put the decal in its place. In addition, I normally use the products Micro SOL and SET to fix and soften them. To avoid problems with the transparencies of the decal (whitening or icing) it is recommendable to apply first a thin layer of gloss varnish on the area where you want to apply the decal.

Finally, we apply couple of layers of satin varnish with the airbrush. Be sure that everything is covered properly, since the idea of the varnish is to protect what we have painted from the next steps, where we will start using enamels. If we do not protect the work done with acrylic paints, we can ruin it using enamels. In addition, the satin varnish layer is important to properly integrate the decals and cover its edges and to facilitate the application of the enamels. Varnishes are a little bit tricky and sometimes you can get some surprises. So far, I did not get any trouble with the "Lucky Varnish" from AMMO.

Protect the work done so far with couple of layers of satin varnish, given that the next steps with enamels are very agressive.

STEP 5 – FILTER

The first weathering effect is done with an enamel, and it is called filter. A filter or glaze is a very diluted paint, whose porpoise is to slightly change the color of the surface. In this case, I want to use a brownish filter to integrate a little bit better the two colors of the camouflage and recover the dark yellow that was too pale for my taste. I used a filter from AMMO, Tan for 3 Tone Camo (A.MIG-1510). To apply a filter we need a flat brush and a paper towel. First, we soak the brush in the filter and then we discharge or remove the most part of it on the paper towel. Now, with the brush just moistened with the filter we apply it all over the tank. You do not have to clearly see the change, so do not worry if the effect is not significant. We work with the weathering effects layer by layer, and each layer counts at the end. Remember to use a special thinner to clean the brush! I normally let it dry overnight, since the following weathering steps are also done with enamels and we can accidentally remove the filter effect.

The brown/orange filter will serve to recover the dark yellow colour as well as to harmonize the two colours of the camouflage.

STEP 6 – WASH

The second weathering effect is also done with an enamel, and it is called wash. The wash is also a diluted paint, but not as much as the filter. The idea of a wash is to highlight the recesses with a dark color. I used another ready-to-use product from AMMO here, the wash Dark Brown for Green Vehicles (A.MIG-1005). This wash is quite dark for the base color of the tank, but it will help to clearly mark the recesses in such a small model. Once again, we need to force the contrast. After shaking the bottle properly, with a thin brush we apply the wash only on the recesses. This is a pin-wash, which means that we carefully apply the wash rather than covering the whole model. Do not worry if you accidentally put too much paint or apply it in the wrong place! This is the beauty of enamels: we can remove the excess later.

Let it dry for one hour or so. Then, using a cotton swab or a brush moistened with White Spirit or turpentine we remove the excess of the wash. The idea is to keep the wash only on the recesses.

Apply the was in all the recesses, including the tracks and wheels.

After 30-60 min remove the excess of wash.

Follow the direction of the gravity to create some subtle streaking effects.

STEP 7 – PROFILING

You can skip this step if you wish. I personally like to clearly define each part of the tank with a very sharp dark line. Sometimes the previous wash step is not enough to do it; and therefore, now I use an acrylic paint such as Dark oxide (302, Vallejo) to paint a very thin line around the details that were not properly marked with the wash. Note that it is not about repainting all the recesses again!

Use a thin brush to paint a dark brown line in those parts or recesses where the wash was not enough.

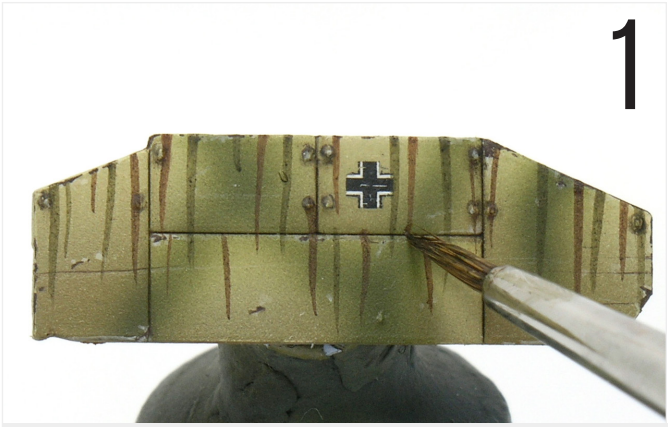
STEP 8 – CHIPPING EFFECTS

We continue using acrylic paints for the next weathering effect: scratches and chipping effects. I normally paint the chipping effects in two steps: first I use a light color to paint all of them, and then I use a dark color to paint the inner part of only a few of them. The former simulates superficial scratches and chippings, while the later represents the exposed metal –deeper chipping-. For the dark color we can use a dark brown color such as Dark oxide (302,Vallejo) or Chipping (A.MIG-044), while for the light one we can use the paint we use for the final highlight of the dunkelgelb. If for some reason this is not light enough, we can mix it with a little bit of white. To paint the chipping effects, we need a thin brush with a good tip. Remember to thin the acrylic paint (this is a MUST always), and using only the tip we paint chipping effects every here and there. Do not cover the whole vehicle with chipping effects and follow the logic. The areas often used, such as hatches, are more prone to have lost some paint. In the case of the scratches, use carefully the tip of the brush to paint in a single brush stroke a very thin line. Do it quickly to get a straight line. And keep in mind the rule of thumb about weathering effects: sometimes less is more. That is, do not add hundreds of chipping effects. Just a few, and in the more exposed areas. The tank is not junk yet! And remember to do not paint with the dark color all the previously painted light chipping effect. Combine both.

Paint chipping effects on edges and most exposed areas. Control the amount of chipping effects!

STEP 9 – STREAKING EFFECTS

Now we are going to use again enamels to create streaking effects (rust, dust, dirt and so on). Once again, I used several ready-to-use products from AMMO from the range "streaking effects", although you can always use regular oils and thin them accordingly with the thinner. These effects are like a wash but more intense; that is, they contain more pigment than a normal wash. In this case I picked three colors: a grey-green color and two tones of red. The choice depends on what you want to tell in the model. In my case I wanted to simulate a little bit of rust (red) and dirt (grey-green). If you want dust, you will use a very light color, for example. Furthermore, I used here two red tones to gain some contrast: due to the dark yellow base and green camouflage, the red colors will chromatically enrich the miniature. We apply the streaking effects in two steps: first, using a thin brush we paint vertical lines on vertical panels following the logic (gravity). Second, after five minutes, we blend these lines with a flat brush moistened with White Spirit. Apply vertical strokes from the top to the bottom of the panel. Do not worry if you take away most of the paint. We can repeat the process several times, and anyways the streaking effects should be subtle. Once again, we work with the weathering effects layer by layer. And the sum of several subtle effects will create an interesting result. However, you can always create a few striking streaking effects. Just try to remove only a little bit of the enamel. However, do not exaggerate this effect: sometimes less is more.



Paint lines falling from the top to the bottom.

Blend them with White Spirit. Repeat if you wish.

Do not worry if you remove almost all the paint when blending the streaking effects. You can repeat the process to gain more contrast or intense effects. Or you can work individually some streaking effects and blend them using a thin brush.

STEP 10 – WEATHERING EFFECTS ON HORIZONTAL PANELS

In the previous step we worked only on vertical or inclined surfaces. Since we cannot do the same on the horizontal panels (we do not have the same gravity effect), instead we can create some accumulations of rust or dirt in recesses and corners with enamels or oils. In fact, we could even use the same products we used in the previous step. In my case I decided to use oils, which in fact are manipulated exactly in the same way as enamels. Once again I used a red oil to gain contrast. To apply it, I used an oil brush from AMMO which includes its own brush. First, I apply a little bit of oil in the desired area, and then I blended it with White spirit. In this case we do not want to remove the excess as we did with the streaking effects. Instead, we want to distribute it over the horizontal surface. However, we can create points of interest by applying the oil only on some areas or part of these areas, and not all over the surfaces.

I also used a yellow oil color to recover the yellow of the dunkelgelb in some areas. First, I thinned the oil with White Spirit and then I applied it as a filter following the instructions we discussed in the section 5. Oils and enamels are quite useful for this porpoise. Sometimes, during the airbrushing steps or after during the weathering effects we can loss a little bit the original color of the model. We can use oils and enamels to create a filter and recover the original color.

We should be coherent and use similar colours as those used for the streaking effects.

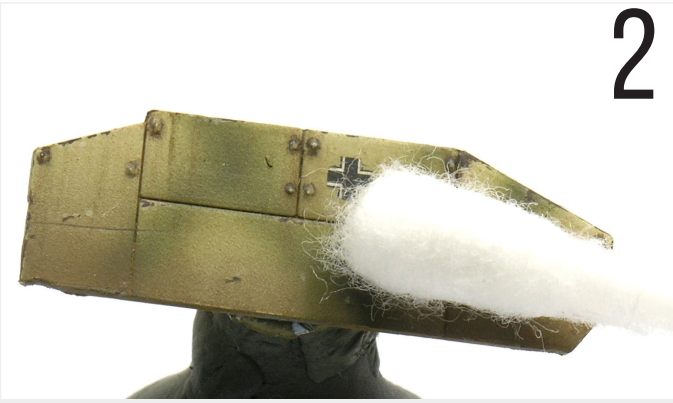
STEP 11 – PIGMENTS

Finally, we are going to add some pigments to simulate dust on the tracks and lower part of the vehicle. Pigments can be applied as dry directly from the bottle -just spread them using an old brush- or wet when mixed with White Spirit or turpentine. Here, we are going to use the second option.

First, we mix a few pigment colors to create a more interesting color. Then, we thin this mixture with White Spirit. The more White Spirit, the more diluted or subtle will be the result. Using a brush we apply the pigments on tracks, lower part of the tank and side skirts. And we let it dry until the White Spirit is totally evaporated. This can take easily one hour or even more. However, we can speed up this step by using a hair dryer. Once it is totally dry, we remove the excess of pigment with a cotton swab as we did for the wash.

Note that if you apply now another layer of varnish you will dramatically change the color and even texture of the pigment. You cannot varnish now. If you want to fully protect the pigment without changing the color or texture, then you can add now a little bit of "pigment fixer" from AMMO.

Apply the mix of pigments and thinner in the lower part.



Once is totally dry, remove the excess of pigment.

STEP 12 – FINAL TOUCHES

We can use a graphite pen to mark the edges of the tracks and any other metal part. And we can now finish the model by painting the accessories and crew with acrylic paints. We can also create aerials using nickel rods of 0.2 mm, which are painted with black. The vegetation was done with seamoss and train modelling leaves.

Use acrylic paints to paint the crew and stowage, and a pencil to mark the metal tools and tracks.

GALLERY