



HOW TO PAINT A SD.KFZ. 251 HALF-TRACK

VICTRIX GAMES

COLOR CHART

CAMOUFLAGE


DARK YELLOW


 Dark base (A.MIG-901)

 Base (A.MIG-902)

 Highlights (A.MIG-904)

GREEN AND BROWN

 Olivgrün base (A.MIG-916)

 Schokobraun (A.MIG-015)


 Highlights (A.MIG-904)

TRACKS


 Darktracks (A.MIG-035)

 Graphite pencil

CREW AND STOWAGE

 Field grey (AMMOF-512)

 Warm Skin Tone (A.MIG-117)


 Matt earth (AMMOF-507)

 Burnt brown red (AMIG-0134)


 Silver (A.MIG-0195)

WEATHERING


FILTER

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


WASH


 Brown for German Dark Yellow (A.MIG-1000)


CHIPPING EFFECTS


 Chipping (A.MIG-044)

OILS


 Dark brown oilbrusher (A.MIG-3512)


 Rust oilbrusher (A.MIG-3510)


 Earth oilbrusher (A.MIG-3514)

 Dust oilbrusher (A.MIG-3516)

DUST EFFECTS (PIGMENTS)

 European earth (A.MIG-3004)

 Dark earth (A.MIG-3007)

 Medium rust (A.MIG-3005)

PAINTS

We usually utilize acrylic paints to paint our wargaming miniatures. These paints are easy to use, are thinned with water and dry in seconds. However, in our local hobby shops we can find other types of paints: enamels, oils, pigments, lacquers, etc. These are commonly used by scale modelers to create different weathering effects as they offer different possibilities compared with acrylic paints. It is important to know that these other types of paint require specific thinners and are used differently, as you can see in the two boxes below.

Legend:
 Acrylic paint
 Enamel/oil based paint

ACRYLIC AND ENAMEL / OIL PAINTS

ACRYLIC PAINTS

- Can be thinned with water or acrylic thinner.
- Brush can be cleaned with water.
- Dries in seconds.
- Once it is dry, it is impossible to wipe away.

VS

ENAMEL / OIL PAINTS

- Thinned with white spirit or similar.
- Brush must be cleaned with white spirit.
- Dries in hours.
- Can be worked with and cleaned for a long time.

STEP 1 – PRIMER COAT

Start removing the cast flashes and lines using a modelling knife and files. Next, using a specific glue for plastic kits we put all the pieces together. Let the glue cure for at least one hour and then apply the primer coat.

The primer is essential and we always have to apply it prior starting painting a miniature. The primer is a special type of paint extremely resistant and facilitates the adherence of regular paints. I normally apply the primer coat with an airbrush or spray to create a very thin layer. This is very important when painting vehicles as we have large flat surfaces. Using an airbrush or spray primer allows a smooth consistent coat which can be harder to do with a brush, which can flood the details, or leave brush strokes. A grey primer as it is a great base for both light and dark colours. The primer is then left to cure overnight.



Let cure the primer coat from a few hours to overnight.

STEP 2 – DUNKELGELB (DARK YELLOW)

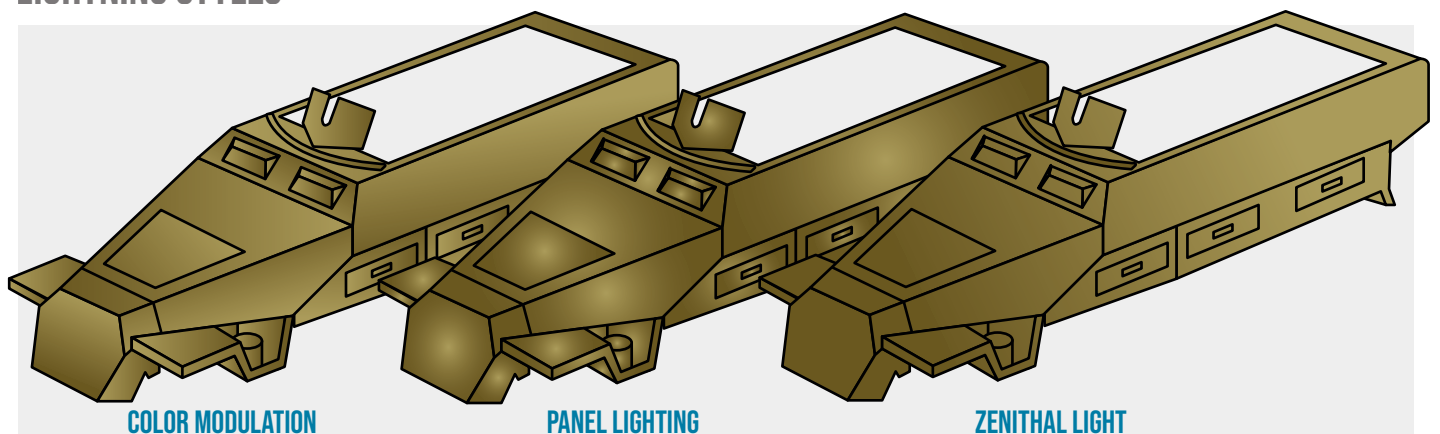
In this occasion I decided to paint the hanomag with the mythical ambush German camouflage or Hinterhalt-Tarnung. This camouflage consisted in a base color of dark yellow (dunkelgelb) with olive green (olivgrün) and red-brown (rotbraun) or chocolate brown stripes. Then, small dots of the other two colours were applied on top of each colour. The idea of this pattern was to simulate the sun shining through forest foliage. That is, first we need to paint the three-colour camouflage and then the small dots. Given the small scale of the half-track I decided to paint hard-edge camouflage spots to create a more defined camouflage.

To paint the camouflage with shades and lights we will need an airbrush. I normally use a Renegade Krome from Badger with a 0.2mm needle and around 2 bars. Note that this might change depending on where you live since the atmospheric pressure

is distinct in different places. Although most of the paints for airbrushing are ready to be used, I prefer to thin them a little bit more. For acrylic paints, we can use simply water but it is always recommendable to use the thinner from the same company. Thinned paints prevent airbrush clogging problems and facilitates the application of the paint. In addition, if the paints are thinned, we can play with the intensity of the colour: the more layers, the more intense or opaquer the colour. This is very useful to create smooth transitions between colours without preparing a new mix.

We have different methods to apply the highlights in scale models. The classical method is the zenithal lighting, which considers a single source of light, such as the sun. However, there are other options including panelling, pre-shading and colour modulation. Personally, I find the colour modulation the most suitable.

LIGHTNING STYLES



ble method for these tiny models. The problem of small objects 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 bigger counterparts even if they are painted with the same colour. To overcome this problem, the colour modulation serves to force the contrast or the difference between the lightest and darkest tone of a colour. Although this method is extremely unreal, -it resembles a 3D render-, it is very useful to bring our tiny models to life.

In the colour modulation we paint each panel or surface independently, with their own shades and highlights. The better results are obtained when we place the final highlight of one panel close to the darkest shade of an adjacent panel. To do it we can use different masks to cover the adjacent panels, such as masking putty, masking tape or a piece of paper. Therefore, we can work

easily one panel at a time without ruining the adjacent ones. I acknowledge that this method is rather complicated to follow in these tiny models. But do not worry, we do not need to get perfect lines and transitions. Just try to get a nice contrast between panels, as you can see in the images.

To paint the German dark yellow, I normally use the colour modulation set from AMMO of Mig Jimenez, which includes 5 successive colours. These are ready to use so that we do not need to mix anything. For these tiny tanks I airbrushed only three of them: dark base (A.MIG-901), base (A.MIG-902) and highlights (A.MIG-904). I started with the darkest and then continued with the base and light. For the final highlight, I used a normal brush and a even lighter dark yellow, Shine (A.MIG-905), to painted small details such as hatches, rivets and some edges.



The color modulation is unreal, but it creates very interesting contrasts in our tiny models.

STEP 3 – CAMOUFLAGE WITH MASKING PUTTY

As I explained earlier, I decided to paint the camouflage with hard-edges because I think that the results would be clearer or tidier after painting the dots of the ambush camouflage. For hard-edge spots, where the edge of the spot is clearly defined rather than diffuse, we need to use masks to protect the previous colour/s. For each colour of the camo we will use a shade, base and highlight as we did for the dunkelgelb. For this type of camouflage with irregular spots

I normally use an auto-adhesive or masking putty (A.Mig-8012) for masking. There are many options in the market and you can use any of them, but be sure that it does not take your paint away!

We begin covering one third of the hanomag with the masking putty creating stripes or amoeboid shapes. Remember that what you cover will not be painted! You can use a toothpick to adapt the putty to the surface. Then, we airbrushed the green colour in



Cover 1/3 of the hanomag using masking putty.



Airbrush the green colour, with shades and lights.

three layers: shade > base > light. For the shade we can mix 50/50 Olivgrün Base (A.MIG-916) and black, for the base we can use directly Olivgrün, and for the light we can mix Olivgrün with Dark Yellow Highlights (A.MIG-904) in the same proportion. Follow the same lightning pattern you applied before for the dark yellow That is, apply the highlights in the same area as you did before. Next, we repeat the process. First, we cover half of the exposed surface with the masking putty, and then we airbrush the brown camouflage using Schokobraun (A-MIG-904) in a similar

fashion: shade > base > light. Finally, remove carefully the masking putty and put it back into the box (it can be reused).

Then, using a thin brush we paint small dots with Dark Yellow Highlights on the green and brown spots. And similarly, we paint green and brown small dots on the dark yellow area using Olivgrün and Schokobraun. Try to cover all the areas with the same density of dots, and keep the same distance between all of them.

3



Cover again the vehicle with masking putty.

4



Airbrush the brown colour, with shades and lights.

5



Remove carefully the masking putty with your fingers.

6



If needed, use a brush to correct the camo spots.

7



Paint dark yellow dots in the green and brown spots.

8



Paint green and brown dots in the dark yellow areas.

STEP 4 – DETAILS, DECALS AND SEALING

Next, using acrylic paints we paint the remaining unpainted parts, such as the wheels and tracks. For example, I painted the tires and rubber parts of the track wheels with black, and the tracks with a grey brown colour such as Dark tracks (A.MIG-035). In addition, I used Burnt brown red (AMIG-0134) to paint the back parts of the seat and the wooden part of the MG, and with Silver (A.MIG-0195) the gun barrel. The same Burnt brown red colour serves to simulate the rusted exhaust. Remember to thin the acrylic paints with a little bit of water to facilitate its application. This is the moment to apply the decals. It is advisable to apply a thin layer of gloss varnish first,

so that we create a totally flat surface to accommodate the decal. This will also help to avoid the “icing” effect (when the transparent parts of the decal become whitish). Next, using a modelling knife cut carefully the decal and then soak it in water until the it is separated from the paper. Next, apply the decal on the surface using the corresponding products such as Ultra Decal Fix (A.MIG-2030) to accommodate the decal on irregular surfaces and Ultra Decal Set (A.MIG-2029) to secure it on the surface. Finally, it is very important to apply one layer of satin varnish with the airbrush to protect everything from the more aggressive enamels techniques that we are going to use next.



Use acrylic paints to paint the wheels, tracks, seats and MG. In addition, now is the moment to apply the decals. It is extremely important that before continuing with the weathering effects we apply a layer of satin varnish to protect the previous work.

STEP 5 – FILTER

The first weathering effect we are going to apply is a filter. This effect consists on a very thinned layer of paint whose goal is to slightly change the colour of the surface. For example, we can use a light brown filter to simulate dust, or an orange filter to saturate the dark yellow colour if we went to far with the white during the highlights. Note that a filter does not serve to mark the recesses (that is a wash, the next step!). Here, I used a brown-orange enamel filter from AMMO, Tan for 3 Tone Camo (A.MIG-1510) to recover a little bit the yellow and also to homogenize the three colours of the camouflage (each colour will be slightly change toward the filter colour). To apply the filter, first we soak the brush in the filter and then remove the most part of it on a paper towel. Now, with the brush moistened with a little bit of filter we extend it over the vehicle. Do not expect to see a clear and striking change. The change is subtle! I normally let it cure for several hours or overnight.



Apply gently the filter over the vehicle. Remember to remove the excess of paint first on a piece of paper.

STEP 6 – WASH

The second weathering effect we are going to apply is a pin wash. The primary goal of this is to add artificial shadows to the recesses of the model with a dark colour, such as dark brown or blue (black is often too stark or unrealistic). We explicitly want to use an enamel here. The main difference between enamels and acrylics, is that enamels take longer to dry, giving us more time to work with the product. Enamels cure in hours, whilst acrylics dry in seconds. Any excess enamel can be removed with enamel thinner (such as White Spirit or

turpentine), this can be done once partially or touch dry before the enamel is fully dry. This is impossible to do with an acrylic wash, and we have a much longer working time with the enamel. For the wash I used Brown for Dark Yellow (A.MIG-1000). We apply the wash very carefully and exclusively on the recesses (this is a pin wash). I then wait 30-60 minutes. Any excess pooling of wash can be removed with a brush or cotton wool bud moistened with White Spirit. When using a brush the excess wash can also be shaped using vertical strokes to stimulate streaking effects.



1 Apply carefully the wash with a thin brush on the recesses.



2 Once it is dry, remove the excess of wash.

STEP 7 - CHIPPING EFFECTS

Next, we will use again acrylic paints to create chipping effects and scratches where the paint has fallen off and exposes the metal underneath. I normally apply the chipping effects in two steps, first with a light colour (superficial impacts) and then with a dark brown colour (bare metal). However, in this case I decided to simplify this effect given that we already have a lot of light colours around due to the dotted pattern. Thus, I used only a dark brown colour, such as Chipping (A.MIG-0044). To paint the chipping effects we need a thin brush to carefully paint small dots on the edges of the panels and in those areas that are heavily used such as hatches. You can also paint thin lines to simulate scratches. It is very important to 1) paint SMALL chipping effects and 2) avoid patterns. Furthermore, you do not need to cover the whole vehicle with chipping effects. Paint them here and there.



Use a thin brush to paint small chippings and thin scratches.



It is very important to avoid repetition and patterns. Do not paint the same chipping effects on each vehicle (i.e. if you paint a big scratch on the MG shield of one half-track, do not do the same in the others). Each vehicle should tell its own story.

STEP 8 - WEATHERING EFFECTS USING OILS

Oils are utilized in the same way as enamels: they are thinned with White Spirit and cure in hours. We can use them to create some colour variations and enrich the model. For example, we can use a reddish tone to create some rust around some chipping effects or create some dust effects on the wheels using a light brown oil. We have two options to use them: 1) apply a little bit of oil on the desired area and then blend it with White Spirit, or 2) first thin the oil with White Spirit

and use it as a filter (as we saw before) to slightly change the colour of the area. The more layers, the more intense will be the effect. For my half-tracks I decided to use four different colours: one brown (Rust oilbrusher, A.MIG-3510) and one red tone (Dark brown oilbrusher, A.MIG-3512) to create dirt and rust, and two light brown colours to simulate dust: Earth oilbrusher (A.MIG-3514) and Dust oilbrusher (A.MIG-3516).



Use oils to enrich the base colours and to create additional effects, such as heavy dirt or streaking effects. Work one area or even one panel at a time and remember that it is important to create variations and contrasts. Use several oils and play around with the number of layers (the more layers, the more intense the effect) to achieve this.

BEFORE

AFTER



Here you can clearly see the results after applying the oils. Note how some flat panels become more interesting after working with brown and reddish oils. This is more evident in the frontal horizontal panel and the sides. Similarly, using dusty colours we can simulate dust effects on the tracks and wheels.

Like for any other weathering effect, remember that sometimes "less is more". Remember that you can easily remove the oil with White Spirit if you do not like the results.

STEP 9 - PIGMENTS

The last weathering effect are pigments. We can use these to create dust or mud effects. There are two options to apply pigments: 1) dry (directly from the bottle) to create a regular dust effect, and 2) wet (mixed with White Spirit) to create accumulation of dust or mud. You can combine both. In my case I used the first option to create accumulation of dust in lower parts. I normally mix two or three different pigments to enrich the resulting colour, and then using an old brush I spread

the mixture over the wheels, tracks and mud guards. After this step, DO NOT apply any varnish or you will dramatically change the pigment effect. If the pigments get wet with the varnish, they will change the colour and become very dark. This is in fact useful if you want to simulate mud, since you can use glossy varnish to darken the pigment and give it a glossy effect. Alternatively, if you want to protect the real colour of the pigment, you can carefully apply "pigment fixer" from AMMO in a drop-wise fashion.

1



Spread the dry pigment over the tracks and lower parts.

2



Carefully apply the graphite pencil on the edges of the tracks.

STEP 10 - CREWS AND STOWAGE

T Finally, we paint the crew and stowage using acrylic paints. I normally paint these separately and then glue them on the vehicle using cyanoacrylate glue. We can simplify the process using triads or three colours: shade > base > light. For example, for the uniform we start applying the shade with a mix of Field Grey (AMMOF-512) and black in the

same proportion, the base with pure Field Grey, and the highlight with Field Grey and light yellow in the same proportion. Apply the lights following the wrinkles and/or in the most prominent parts, such as the shoulders or knees. Similarly we paint the rifle and the skin with Burnt Brown Red (AMIG-0134) and Warm Skin Tone (A.MIG-117) respectively as the base.



1
Apply the primer coat if you did not do it before. For this scale I usually use grey or black.



2
Paint the uniform and helmet with a field grey + black in the same proportion (1:1).



3
Highlight the uniform first with field grey and then with field grey + light yellow (1:1).



4
Paint the leather parts with black and the face and hands with Red Brown Red.



5
Paint the skin with Warm Skin Tone and apply the lights by mixing it with white. The rifle can be painted first with Red Brown red and highlighted with Orange.



For such a small scale miniatures batch painting speeds up the process.



Paint the stowage separately and then glue it on the hanomag using cyanoacrylate glue.

GALLERY

