FineScale Modeler MAGAZINE

Tips and techniques for creating better models

BEGINNERS GUIDE: HOW TO GET A BETTER FINISH ON YOUR MODEL

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ABCs of acrylics

These water-based paints make modeling easier and safer

By Walt Fink *Photos by William Zuback and Walt Fink*

As modelers become more concerned about the effects of chemicals on their well-being, many are switching to acrylic paints. While they still require care, modeling acrylics are less toxic than the petroleum-based enamels and lacquers.

However, when you first try water-based acrylics, you may find them difficult to use. They aren't actually troublesome, only different. Compared to enamels, they take less thinning to apply with an airbrush, and they are more susceptible to surface contamination (oils), so your methods of painting will change some. On the plus side, they produce beautiful finishes with little effort (once you get the hang of them).

Another benefit of acrylics is that they tend to be a little more translucent than other model paints. This means that more coats will be needed to cover, and that will help hide minor surface flaws such as sanding marks. Because of this and their self-leveling properties, most acrylics form a good base for metallic paints such as Alclad II or SnJ. The first few coats of these metallics should be "dusted" on because they may soften the acrylic surface if applied too wet.

"Shoot!! You're Faded" was a beautiful (and unusual) camouflaged P-47M Thunderbolt. Walt built the 1/72 scale Revell Germany kit and painted it with Gunze Sangyo acrylic paints.

Unlike lacquers and enamels, some acrylics can be stripped using whatever solvent or thinner was used for airbrushing. Although this is handy, it also means that the finish is fragile.

Of the acrylics I've tried, I prefer Gunze Sangyo's Aqueous Hobby Colors as they airbrush and cover beautifully – and they

are forgiving. The main drawback is that they're sometimes hard to find.

Don't mix. Although all "acrylic" modeling paints are water-based, each brand has a different formula (except for AeroMaster's discontinued Warbird Acrylic line that is compatible with Polly Scale), **1**. I don't mix different brands together, as the differing formulas may react, causing the paints to clump or separate. Also, water-based acrylics can't be mixed with oil-based enamels or lacquers.

I don't use different brands of acrylics to paint one model. For example, if I use Tamiya paints for some colors, I don't apply Gunze or Polly Scale over (or under) them. The different formulas may react on the model, causing blushing (fogging) or cracking – problems that can be fixed only by stripping the model completely of paint.

I've used enamels over cured acrylics, usually without an adverse reaction. This is handy if I want to use an enamel wash for such things as panel lines, wheels, or rotor heads. The wash can be applied and removed with a little thinner without lifting the underlying paint. However, some enamel thinners are stronger than others and may cut into my acrylic finish. For example, Testor's Thinner is benign, but its Airbrush Thinner is "hot." Enamels and acrylics can coexist on the same model, but I don't generally mix my paint types unless I can't get the correct color in acrylic.

Clean machine. Cleanliness is important; I clean my airbrush after each color. Once acrylics dry, they can be stubborn to clean out, and I may have to resort to soaking the airbrush parts in lacquer thinner.

Because dried acrylic paint can set a lid on so tight it'll take pliers to remove it, I always wipe the rim of the paint jar with a drop of solvent on a rag before I replace the lid.

If you use a compressor with your airbrush, make sure you have installed a water trap. Even though acrylics are water-soluble when liquid, a burst of water can mar the paint job.

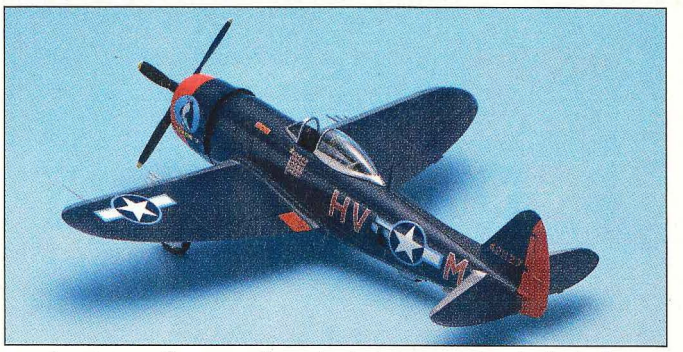
Coverage. A good finish won't cover up shoddy workmanship, so make a clean model first, then add a fine paint job. You don't need expensive equipment to get good results with acrylics. I use single-action airbrushes to paint my models – a Binks Wren or a Paasche H with a fine tip, and 20-30 psi output from a CO_2 cylinder for the air source.

It's good to have a "plan of action" for painting and finishing each model. Sometimes I mask and paint a complicated scheme rather than using decals. For this, I make a copy of the decal and use it as a guide to cut masks.

I try to paint all the areas of the same color once. If a final color is light (yellow, red, light blue, or light green), I first undercoat that area with white. Acrylics tend to be a bit translucent, and the white keeps the light colors bright. I also paint lighter colors first and darker colors later. It can be done the other way around, but it takes more paint – and more paint can hide detail.

Keep records. I keep a record of what paints I use on particular models, especially if I mix my own custom colors, **2**. A simple paint-mixing chart helps me match the color if I need more, and shows me how I can adjust the color if I don't like the result.

For example, the Azure Blue I used on the two-tone blue P-47 was mixed from several Gunze colors, since it was unavailable out of the bottle. After I mixed up a batch that looked right, I sprayed some on a sheet of white styrene and compared it to a color chip. I ended up tinting it a little more to make the match – and made remarks in my color notebook.

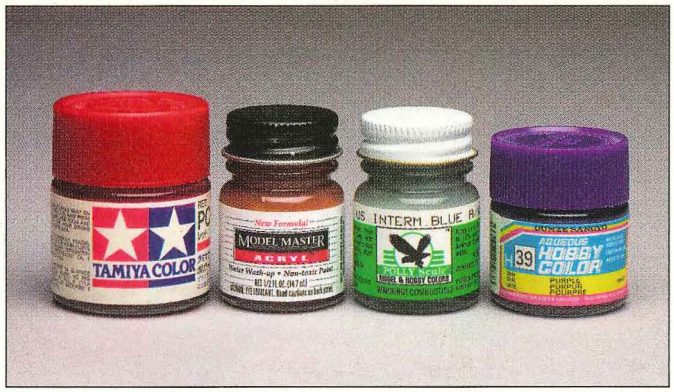


Another unusually camouflaged T-bolt was Michael Gladych's P-47M, with its dark plum auto paint. Walt mixed the color with acrylics and matched the rudder and cowl to the color of the fuselage codes on this Revell Germany kit.

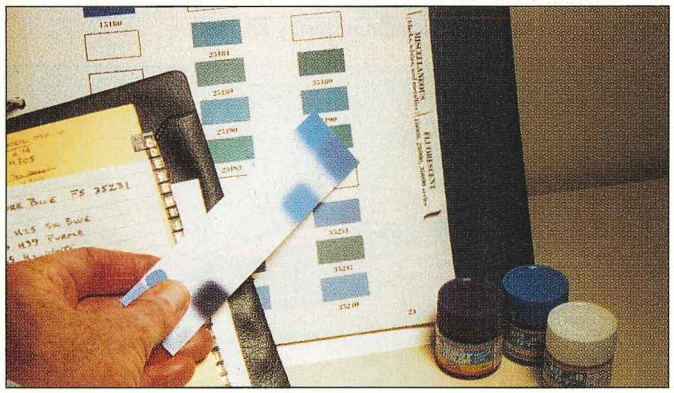
Alclad II can be applied (carefully) over acrylics to produce a fine natural-metal finish. This is Academy's P-47D bubbletop.

A variegated camouflage pattern in RAF colors was applied to this D model bubbletop. Walt's Academy kit shows that fine camouflage can be accomplished with acrylics.

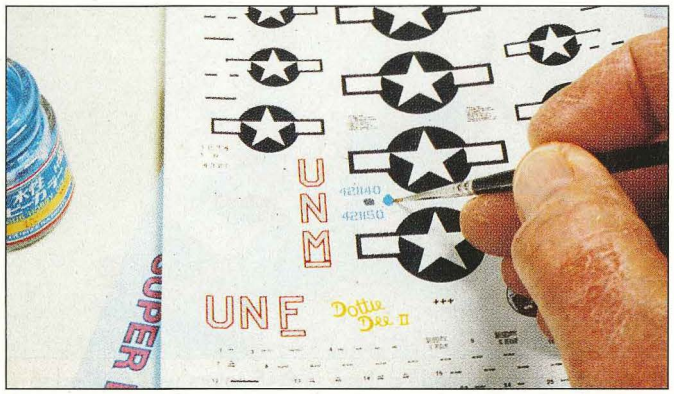
This Academy razorback Thunderbolt shows off full invasion stripes. A white undercoat was overpainted with the camouflage and black stripes.



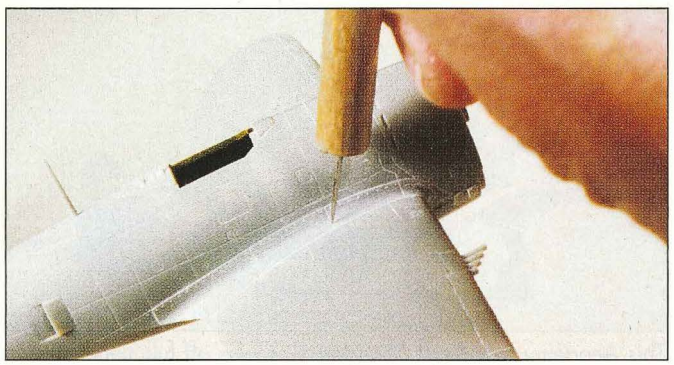
1 Acrylics include (from left) Tamiya Color, Testor Model Master Acryl, Polly Scale, and Gunze Sangyo Aqueous Hobby Color.



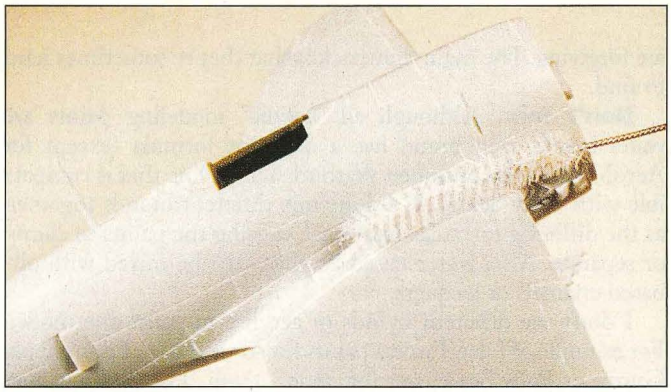
2 When a color isn't available, Walt mixes colors and compares the results with a color standard (Federal Standard 595 shown).



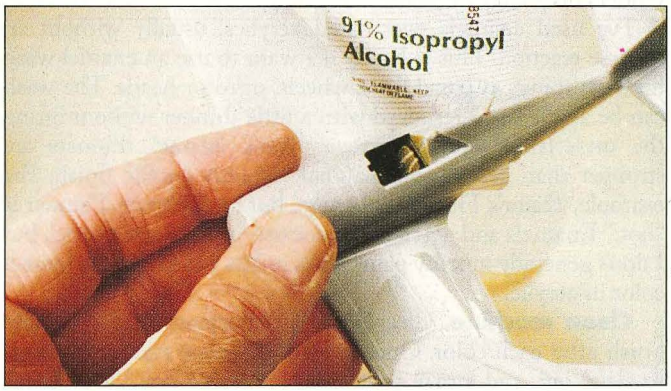
3 Once in a while, paint needs to be matched to a decal color. Walt dabs the colors right on the decal sheet.



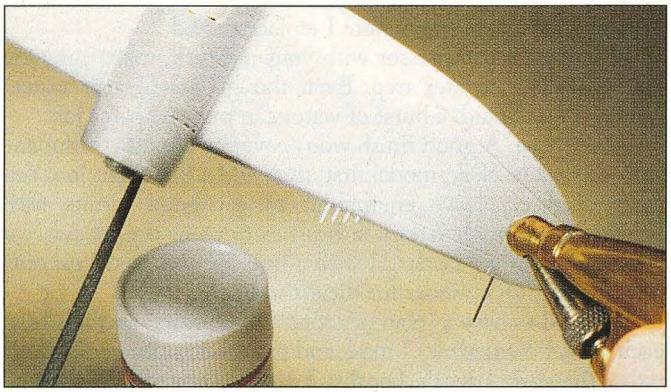
4 Sanding dust is scratched out of panel lines with a needle.



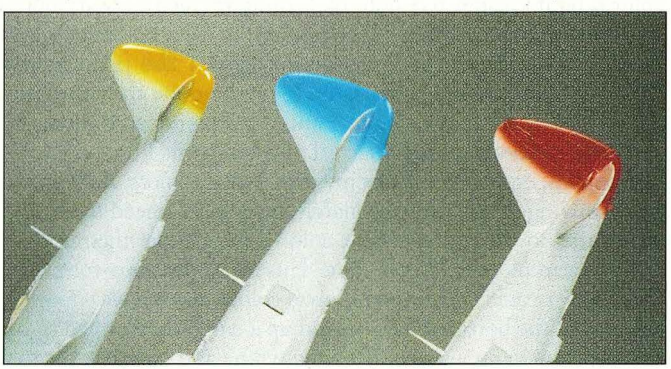
5 Scrubbing the model with a small dental brush removes stubborn dust.



6 A dousing of rubbing alcohol removes oils and fingerprints. The adhesion of acrylics is particularly affected by oils.



7 Light, dusty coats of acrylic establish "teeth" for heavier color coats to come.



8 It's a good idea to apply a coat of white before painting with light, bright colors.

Sometimes, I need to match paint to decals, such as the rudder color to match the serial numbers on a few of my P-47s. In this case I mixed the color and dabbed a little on the decal sheet next to the color I was trying to match, **3**.

Prep for paint. After construction and sanding seams, I remove all sanding dust from recesses and panel lines – I don't want to seal that stuff under my paint! I use a small bit in a pin vise as a miniature reamer for recessed rivets, and a needle for panel lines, **4**. Next, I scrub the surface vigorously with a small dental brush, **5**. Just before painting, I make sure the model's surface is clean and oil-free by wiping it down with isopropyl (rubbing) alcohol, **6**. I wash my hands with soap and water to keep skin oils off the model. Oils inhibit the acrylic's ability to adhere to the surface.

Work under good lighting conditions. Daylight is ideal if you can arrange it; fluorescent lights change the apparent colors of the paint. For best paint matching and effect, I use incandescent light or a combination of fluorescent and incandescent.

Rather than shake acrylics before painting, stir them to ensure all the pigment (color) is mixed into the vehicle (liquid). If a paint isn't fully mixed, it may not cover well, and may end up looking off-color. My high-tech paint stirrer is a 10-penny nail – the pointed end allows me to get into the crevices of the bottle and I can wipe it clean after each use.

The thin and thick of it. Thinning paint can be tricky, and it's even trickier with acrylics. Generally, it's difficult to thin paint too much for airbrushing; the worst thing is that you'll have to apply more coats to obtain coverage. However, it is easy to thin paint too little; this will result in a pebbly texture. It is better to use several thin coats than one thick one. I use regular isopropyl (rubbing) alcohol to thin Gunze Sangyo about 50/50 and also to clean out my airbrushes. It's inexpensive and available at drugstores. I use the 91-percent solution rather than the 70-percent version.

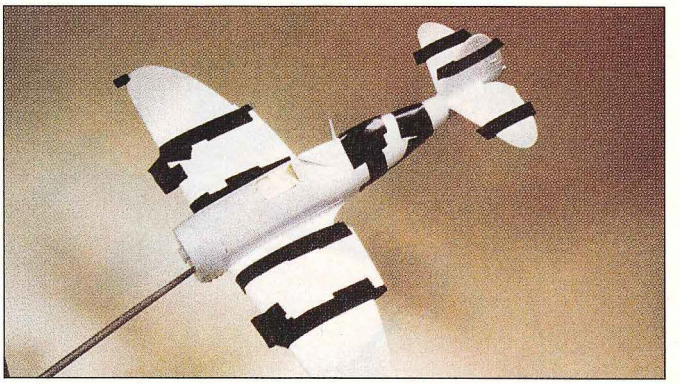
While alcohol works great with Gunze Sangyo Aqueous Colors, it may be disastrous with other acrylics. For instance, straight alcohol causes Polly Scale to coagulate. Water is usually safe with any acrylic, but use distilled water to avoid mineral contamination. Some paints are airbrush-ready right out of the bottle – check the label.

Get your teeth into it. Because the solvents in acrylics don't attack plastic surfaces like those in lacquers or enamels, you'll need to establish some "teeth" for the paint to adhere to. I dust on the first few coats until I can see a definite texture change to the plastic, **7**. This provides something for heavier "color" coats to hold on to. Then I apply the remaining coats a bit heavier. Don't apply acrylics heavily at first; you may get runs or "fisheyes" – spots that repel the paint.

On my Thunderbolts, I applied white first for areas that would remain white (naturally) and as an undercoat for light colors, **8**.

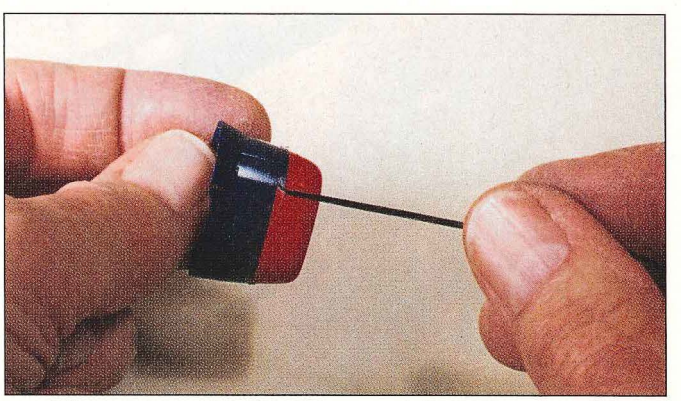
Masking. Depending on the color and amount of paints used, I generally let acrylics dry a day or two before masking and painting over initial coats. Dark colors need fewer coats and dry quickly; light colors require more coats and therefore take longer to cure. In the case of my natural-metal Thunderbolt, I waited a week before overpainting the overall white undercoat. I've force-dried acrylics using a hair dryer or by putting them under a light, but be careful; too much heat can warp plastic.

I use vinyl electrical tape for masking because it can be curved slightly to conform to odd-shaped areas. Before cutting the tape into strips, I cut off both sides to produce the sharpest

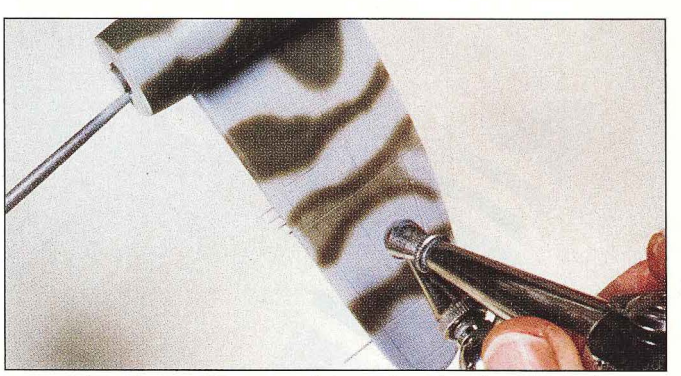


9 The areas that will remain white are covered with electrical tape and paper before the camouflage colors are applied.

10 To achieve sharp lines, Walt sprays at 90 degrees to masked color demarcations.



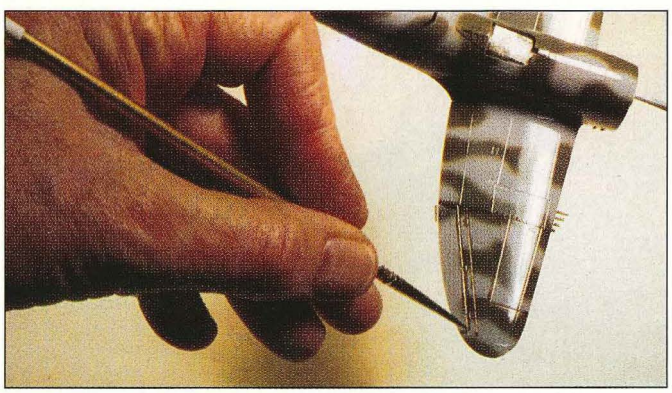
11 When removing masks, always peel them away from the new color.



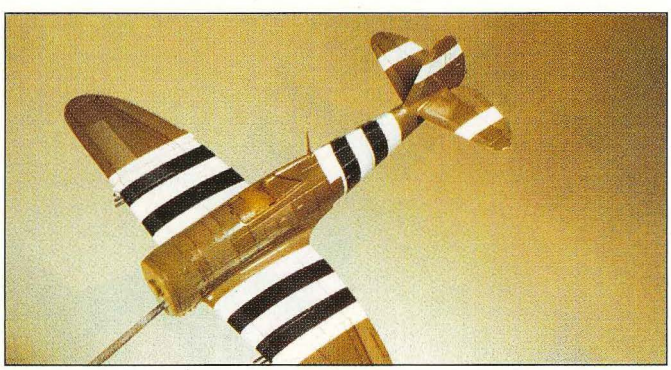
12 Freehand camouflage can be produced with acrylics, but balancing paint, thinner, and air pressure is critical.

13 Here's Walt's collection after painting. The model in the foreground will be painted with Alclad II for a natural-metal finish.

14 Walt thins white acrylic and highlights certain panels and high points.



15 A clear gloss coat is needed before decaling or adding an oil wash. The wash is run into the panel lines with a small brush.



16 The clear gloss overaccentuates the shaded panels. The oil wash deepens the panel lines.

possible edges. I apply as little masking to the model's surface as I can; for wide areas, I use tape only on the edges, relying on paper to fill in the middle, **9**.

Anytime you spray over masking material, just mist on the first couple of coats – you don't want to "flood" the area and have paint creep underneath the mask. Also, spray 90 degrees to the edge of the mask to get the sharpest line possible and avoid "underspray," **10**. Remove masks as soon as possible, and pull the masking material away from the new paint, **11**.

After spraying a metallic finish, I wait at least a day for it to set again before I mask panels for additional metallic colors.

Like enamels, acrylics can be used to freehand camouflage, **12**, and just as with enamels, I determine the right thinning ratio, air pressure, paint volume, and spraying distance. Each paint is different – even within a paint range. I use an old "test model" to experiment with before spraying my latest kit.

Before moving on to highlighting, weathering, shadowing, or applying a metallic finish, I examine the model for any paint problems and retouch if necessary. My collection of Jugs looks ready for final finishing, **13**.

To make aircraft models look more like the real thing, I like to accent panels here and there. Acrylics are great for weathering and highlighting. Acrylics tend to be translucent, so to lighten panels, I don't mix a lighter hue of the base color. Instead, I use five or six drops of flat white acrylic in a thimbleful of thinner and spray that over certain masked-off panels and onto the high points of the fuselage and flying surfaces, **14**. The base colors show through just fine. A light overspray – minimum paint, maximum air – works best.

You're so smooth. Before applying decals and a panel-line wash, I overcoat each model with a protective barrier of clear gloss, **15** – some washes and decal setting solutions can mar acrylic paint. I prefer Gunze Sangyo H30 Gloss, but I know other modelers who use Future floor polish for this purpose. I don't have to apply a gloss top coat if I use gloss paints to begin with. An oil-paint/thinner wash accentuates the areas I highlighted, **16**.

Natural metal. While metallics are included in each of the acrylic ranges, I prefer Alclad II. It is definitely not a water-based acrylic, but an ultra-thin metallic lacquer that requires special treatment. The solvent in Alclad II can work its way through acrylic paints and mar the underlying plastic; to avoid this, I apply it in light coats and build up a metal shine gradually.

The natural-metal Thunderbolt in this collection was first painted white, then had its antiglare panel painted olive drab, the gun panels and trim tabs painted yellow, and the fin capped in red and blue. I masked all these prepainted areas with vinyl tape, **17**, then lightly dusted the Alclad II aluminum (shade A) over the model, **18**. I used other shades of Alclad to accent different panels, then removed the masks from the prepainted areas, **19**.

After decaling, I wipe the model with a rag moistened with distilled water to remove excess decal adhesive, water spots, and residue left from setting solutions. If not removed, these substances can form never-drying spots under an acrylic overcoat.

Flat coat. The next-to-last step is the application of a clear flat coat. Obviously, if the model requires a gloss finish, clear flat isn't required. For a smooth satin finish, I use Gunze Sangyo Clear Flat. For a dead flat finish, I like to use either Testor Dullcote (the bottled variety that you airbrush), or Floquil Dust. Neither of these is a water-based acrylic, so I apply them carefully over the acrylic finish. Floquil Dust not only flattens,

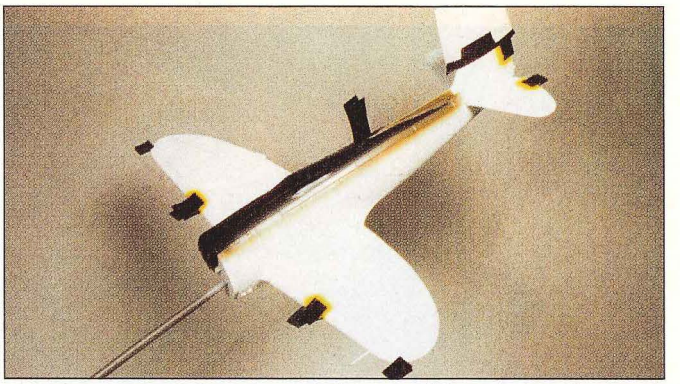
but tones down the finish, so I use it only when simulating heavy exposure to sun and weather. Too much Dust can look chalky, so I apply it in light coats until I get the appearance I want.

The last step in finishing is applying gunsmoke stains and exhaust stains. I do this with the airbrush, but you could use pastel chalk dust applied with a cotton swab. I dilute two or three drops of flat black with an airbrush-cup full of alcohol and lightly build up the stains, **20**. For exhaust stains on dark paint (such as Dark Sea Blue), I mix four of five drops of tan (FS 30219) with thinner.

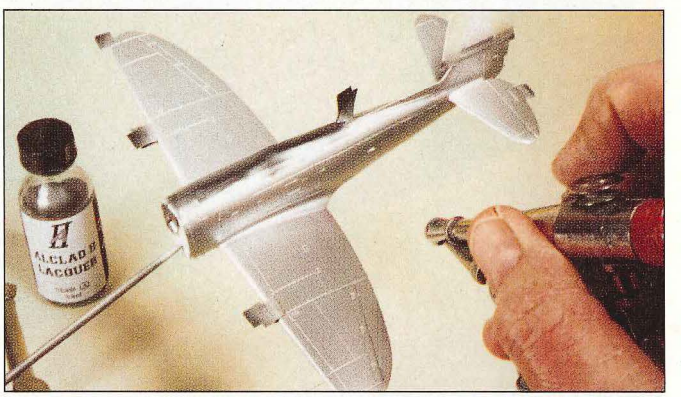
The last word. No matter which paints you use, take your time finishing your models. Trying to rush the painting stage on any project is likely to be disastrous. Give paints time to cure properly, take care with masking and overcoats, and avoid shortcuts. In the end you'll appreciate what fine finishes you can achieve with acrylics. **FSM**

10 tips for finishing with acrylics

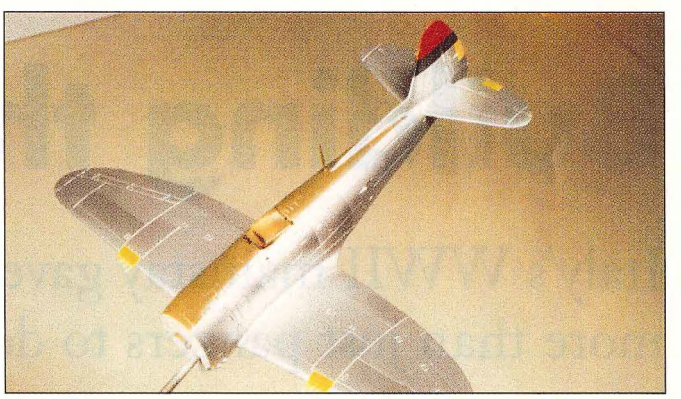
1. Acrylics don't adhere as well as enamels, so clean the model with alcohol. Wash your hands to keep oils from affecting the paint's bond.
2. Drill a hole into an out-of-the-way spot on the model and insert a round needle file to serve as a handle while painting (don't drill into a seam).
3. Don't mix different brands of acrylics together to create a new color. Often the formulas will react and ruin the paint.
4. If you do mix colors (all the same brand), record your mixing ratios. Keep in mind that a paint's color can change as it cures, and that can take up to 48 hours!
5. Since acrylics are a bit translucent, you may need multiple coats for good coverage. Apply a coat of white before painting light, bright colors.
6. Most enamels can be applied over cured acrylics, but don't flood them on; apply light "dust" coats.
7. Cured acrylic paints are tough, so clean your airbrush right after use.
8. Stirred, not shaken. James Bond may protest, but shaking acrylics induces air bubbles that can affect the paint's ability to flow properly.
9. Thin acrylics with water or the recommended acrylic solvent. Alcohol works great with some paints, but can gum up others.
10. Mask acrylics only after they have cured for a few days. Freshly applied acrylics may lift off with mask ing tape.



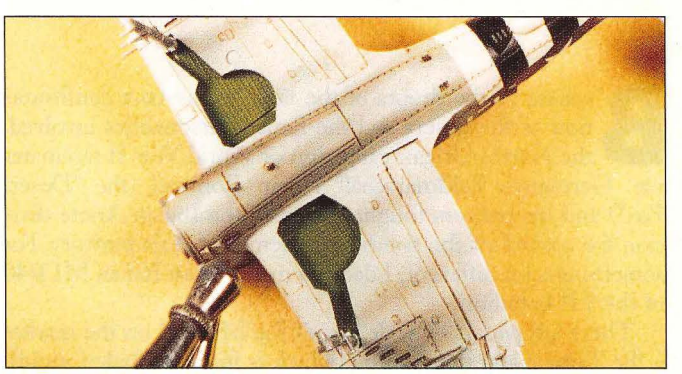
17 After covering the prepainted areas of this T-bolt with tape, Walt is ready to apply a natural-metal finish.



18 Several light coats of Alclad II aluminum establish the base metal finish.



19 Various shades of Alclad were used to differentiate panels. The masks have been removed from the prepainted areas.



20 After the clear flat coat was applied, exhaust and gunsmoke stains were added with the airbrush.

A galaxy of decals, some complex curves, and a covering of flat paint could have spelled doom for Aaron's Polar Lights Klingon D7 battlecruiser. But no worries: A coat of Pledge Future floor polish, applied with an airbrush, produced a perfect bed for the markings.

USING FUTURE for decaling

AIRBRUSHING & FINISHING

Clearing the way for better marks • BY AARON SKINNER

The decals went down perfectly over a gloss coat of Pledge Future floor polish. How often have you read this statement in the pages of *FSM*?

By now, most of us know what Future is, and its myriad uses in modeling. I want to take a step-by-step approach to the thing I like it best for – preparing models for decals. A smooth, glossy surface helps decals stick and prevents silvering.

In addition to airbrushing Future, I'll touch on a couple of other techniques.

Most model paints, especially military colors, have a flat (or matte) finish appropriate for the vehicle being modeled. Flat finishes get their appearance from a rough texture that disperses light. Unfortunately, the rough surface prevents decals from sticking well, causing silvering.

Future goes on smoother over a smooth surface. I always lightly sand the surface of the paint to remove any roughness. Fine sandpaper, such as 1,000- or 1,500-grit, is ideal, but even cloth can be used. You don't need to work hard, just enough so that the surface feels smooth.

After sanding, the surface will likely be covered with a light powdery residue you don't want trapped by the Future. Lightly wipe the model with a tack cloth to remove any residue. You don't need to press hard; the stickiness of the cloth should be enough to remove any dust.

Future is usually sold in 27-ounce bottles with a squeeze-style lid. I suggest unscrewing the lid rather than using the pop-up nozzle. Future will dry in the lid and particles can flake off and either jam the airbrush or get blown onto your model.

Future can be airbrushed straight from the bottle with great results. I pour as much as I need into my airbrush's reservoir. Try not to shake or stir the container too much to avoid creating bubbles and froth that can interrupt the smooth flow of Future from the nozzle.

A word about air pressure: *FSM* Editor Matt Usher and author Matt Swann, in writing about airbrushing Future, say they prefer a regulator setting of about 15psi (left). This works, but I've had better luck with 30psi. Play with the pressure until you are comfortable with the results.

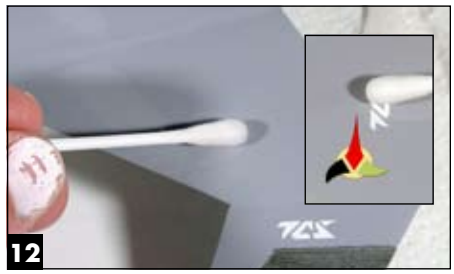
I start by spraying the entire model with a couple of light coats. Hold the brush about 4" from the surface, start and finish spraying off the model, and keep the brush moving. Use good lighting in the spray booth to better observe progress. Right now, you want to cover the entire model but not create the final finish. You only need to wait a few minutes between coats.

For the final shine, I move the brush slower across the surface (do not stop!) in overlapping strokes. When an area I have just passed over still appears wet and glossy, it's enough. *Be careful!* There's a fine line between the right amount and too much. If you make a mistake – like a fingerprint – leave it. Any attempt to fix it while the Future is wet will make it worse.

Set the finished model under a dust-free cover and let it sit for 48 hours. You may be tempted to continue work before then, because the Future will seem dry to the touch in a few hours. But it remains tacky for a long time and, without realizing it, you can add a big fingerprint. Before it's completely cured, Future will react badly to water or decal solutions. So, *wait* two days.

Perhaps Future's greatest benefit as a clear coat is its slow setting time and leveling characteristic. After leaving the model covered for a day, I checked it to find a very smooth gloss coat that has not obscured details. Remember the fingerprint from earlier? It was almost invisible after the Future leveled and dried.

You have a model with few markings and you don't want to gloss the entire thing. You could airbrush a spot for the decal. The other option is to *paint* Future onto the area using a soft brush or cotton swab. The leveling aspect of Future makes brush strokes disappear. I've used cotton balls to apply Future to a 1/144 scale airliner.



Future can help decals stick, too. If you think a decal may not go on perfectly, try this: While the decal is soaking, paint Future onto the area (left). Then, float the decal into place in the Future and brush more Future over it (right). Sop up excess with a cotton swab. When dry, the decal should seamlessly meld into the model's surface. **FSM**

Cleanup

DON'T LET Future sit in an airbrush for too long or it will gum up the works. Ammonia is the best thing for cleaning up Future, but work quickly; ammonia can etch brass. I run a window cleaner with ammonia through my brush, then flush it with water. A blast of lacquer thinner removes any residue before I pull the airbrush apart and clean it.

After the Future

NOW YOU have a glossy model with decals. What next?

This is the perfect time to apply a wash to the model. The glossy surface enables washes to run freely along panel lines. In addition, cured Future is largely immune to other substances, so you can use whatever you like for the wash without worrying about it reacting with the underlying surface. This is great if you use enamel paints but prefer artist's-oil washes.

It also means you can use whatever clear flat you want over the top to return the model's finish to the desired sheen. Some modelers even mix Future with Tamiya flat base to create a clear, flat top coat.

Basics of brush painting

Quality paint jobs with brushes are easier than you think!

Story and photos by Jeff Wilson

One goal in modeling is to give each creation a good finish. Airbrushing is often preferred by experienced modelers, but if you don't have airbrushing equipment, brush painting can still yield great results. Brush skill is also necessary for painting detail items and adding finishing touches to a model.

Successful brush painting requires good brushes and fresh paint, as well as techniques to eliminate brush marks.

For the projects shown here, I used acrylic paints: Model Master Acryl and Polly Scale. Both are quality paints that can be thinned (and cleaned up) with water. The techniques for using enamels are similar, but you'll need to use mineral spirits or lacquer thinner. I painted plastic parts in these photos, but the techniques are the same for other materials.

Select the right tools. For painting broad surfaces, use as wide a brush as possible. I use round brushes up to No. 5 and ¼" to ½" flat brushes, **1**. The softer the bristles, the smoother the finish will be. For a smooth finish coat, especially with gloss paint, get a good sable brush. A synthetic brush can also provide a good finish, and camel hair is good for rough surfaces and general-purpose painting.

Brush marks are the bane of brush painting. The main causes are brushes with stiff bristles (poor-quality brushes or old ones with bristles hardened by dried paint residue) and overbrushing, which leaves patterns in the paint as it dries.

Preparations. Make sure the surface is clean and free of skin oils from handling. Even a little oil repels acrylic paint, ruining the finish.

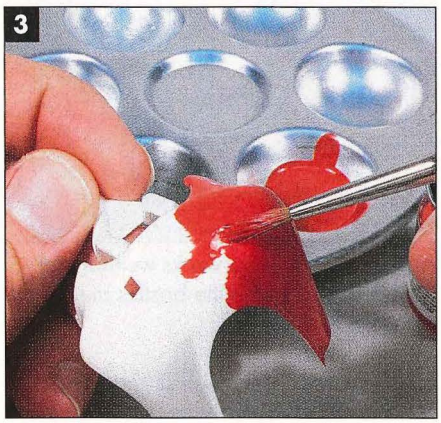
Begin by wetting the brush in water (or paint thinner for enamels). Wipe off the brush using a clean cloth or paper towel. This step eases cleanup by keeping paint from drying on the bristles.

Put paint into a separate container or palette – I use an inexpensive aluminum holder. You can use an eyedropper or a soda straw to transfer the paint, **2**.

Avoid painting straight from the bottle for two reasons. First, air is the main enemy of paint, so you must keep the jar closed as much as possible. Second, wiping off excess paint by pulling the edge of

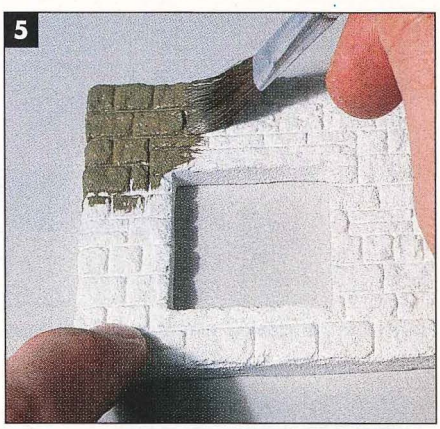
Among the author's most-used brushes are (top to bottom) a Model Master No. 0 synthetic, Floquil No. 3 round pure sable, Floquil ¼" flat camel hair, Floquil ¼" flat Silver Fox synthetic, and Model Master ½" flat black sable.

Place a soda straw in the paint, then cap the end with a finger. Move the straw to the paint dish and remove your finger. The paint will flow into the dish.



Brush the paint with as few strokes as possible. Begin new brush strokes in a bare area and gently brush back to the wet area you've just painted.

This finished motorcycle cowling shows it's possible to obtain very smooth results with a brush.



When painting a rough surface, use a general-purpose brush like this ½" flat camel-hair.

the brush over the lip of the jar often leaves paint in the jar threads. This results in bits of dried paint falling back into the bottle, and they will find their way onto the surface you are painting.

Time to paint. Most paints are already the right consistency for brush painting. Thin the paint only if necessary to get it to flow smoothly on the part. Thinning will decrease the paint's opacity, requiring more coats to cover properly.

Dip your brush in the paint, keeping the paint on the lower fourth of the bristles. Brush the paint onto the surface, using as few strokes as possible. Let the paint level itself.

Follow the general direction of surface lines and details, keeping the brush strokes parallel. Apply paint to the bare surface, then use a light stroke to brush the paint back to the area most recently painted, **3**. Keeping a wet edge at all times will prevent overlap marks.

You'll usually need to apply two coats, which is what I did on this motorcycle cowling, **4**. Some colors cover better than others, especially black, dark grays, dark blues, and greens. Lighter colors may need an additional coat. If you're painting white or yellow on anything other than white plastic, start by applying a primer coat of medium to light gray.

As with airbrushed finishes, small ripples in the finish can be polished out by wet sanding. After the paint is completely cured, start with 320 grit and use progressively smoother grades of sandpaper up to 600 grit.

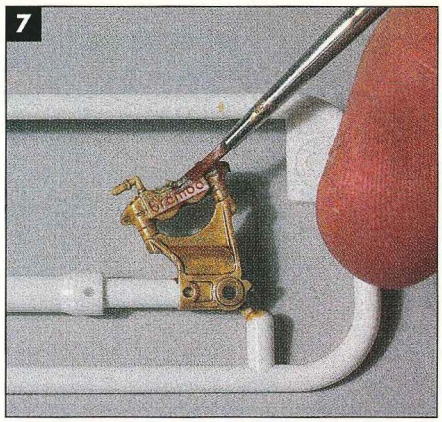
When painting rougher surfaces, such as stone walls, **5**, cheaper camel hair brushes work fine. Since brush marks aren't critical in this situation, you can move the brush in different directions to work the paint into cracks and crevices.

Delight in the details. My favorite brush for painting tight areas and small details is the Model Master No. 0 synthetic. It has a fine point – finer than many 00 and 000 brushes – and it holds more paint than smaller brushes.

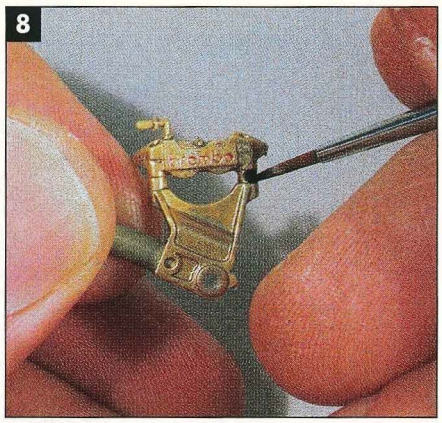
When painting details, start with lighter colors and progress to darker ones, but wait 48 hours before painting one color over another. Paint as much of each part as possible before assembling the model. In fact, keep the parts on the sprues as long as you can – as the photos show, sprues make convenient handles.

Many different techniques are needed for painting details. For example, the motorcycle wheel fork has recessed lettering that needs to be painted red, while the rest of the part must be gold. I started by painting the area with the lettering red, then wiping the surface with a paper towel, **6**. This removed the paint from the

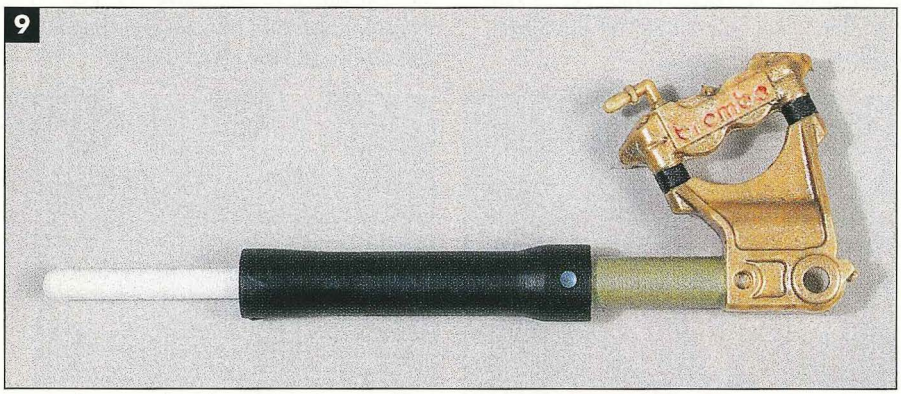
Paint recessed lettering its final color first, then wipe the surface, leaving paint only in the recesses.



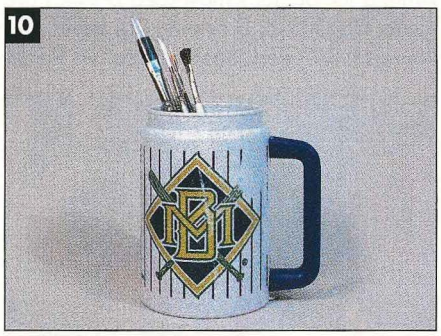
Follow that by using the side of a brush to paint the surface around the lettering.



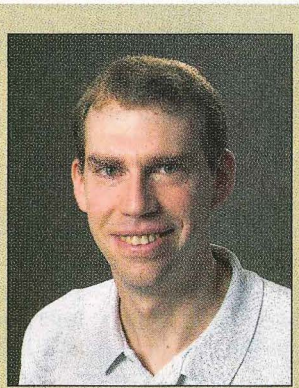
Let the part's topography guide you when painting surface details. Using a fine brush, work the paint slowly to the border.



Here's the completed wheel fork, with four colors applied.



An old mug or glass works well for storing brushes. Be sure the bristles are above the edge of the holder.



Meet Jeff Wilson

Jeff Wilson has been a modeler for more than 30 years. He enjoys building model trucks, but his main focus is model railroads. That's not surprising since he was an associate editor at FSM's sister publication, *Model Railroader*, for 10 years. Jeff has written six books on trains and model railroading and currently works as a free-lance writer. He is a camera operator for his favorite team, the Milwaukee Brewers, and plays bass in the rock/punk/funk/jazz group Foam.

surface but left it in the recessed lettering. I then painted the rest of the part gold, carefully using the side of the brush to paint around the letters, **7**.

For raised lettering or details, do the opposite: paint the whole area the appropriate color, then use the side of the brush to lightly dab or sweep across the details.

Let the ridges and relief of the part guide the brush, **8**. With a fine brush you'll be able to work the paint to and around raised and recessed details. If you get a bit of stray paint on an adjoining area, don't panic. After it dries, you can either lightly scrape it off with a hobby knife, or simply paint over it with the proper color. The finished wheel fork has crisp, sharp detail, **9**.

Cleaning up. Properly cleaning brushes will make them last longer and help them hold their shape. After using acrylics, rinse the brush under warm running water. Massage a drop of liquid dishwashing detergent into the bristles, then keep massaging the bristles under running water to rinse them.

If you're using enamel, dip the brush in mineral spirits or lacquer thinner. Swish it around and roll it gently against the side of the container. I keep three small jars of thinner for cleaning brushes. The first is for getting out most of the paint (this is the dirtiest one), the second for cleaning out any remaining paint, and the third (with clear, clean thinner) for a final rinse.

Never let brushes stand in thinner, and never jab the bristles down into the bottom of a container. This can damage the ferrule (the part that holds the bristles) and cause the bristles to splay and lose their shape.

After cleaning, while the bristles are still wet, form them to the proper shape using your fingers (not your mouth). Store brushes bristles up, and make sure the bristles don't rest against the sides of the storage container, **10**. To protect the bristles even more, use the clear plastic sleeves that come with new brushes.

As with any physical skill, your brush-painting talents will improve with experience. Start by practicing with some spare parts left over from an old kit, and soon you'll be painting your prized models with confidence and getting show-quality results. **FSM**