



3-1 Testors T-33A painted with Metalizer paints and polished to look just like bare aluminum.

### **PAINT FINISH**

No matter how well detailed or super-detailed your model may be, it is the paint that captures a viewer's attention. If there are paint runs or sags, dust flecks, or other distractions in the paint, the realistic effect you are striving for is lost. The model must be virtually surgically clean before applying paint. From now until the final clear coat is dry, handle the model with disposable cotton gloves and use wire or wood holders to support the model while you are painting it. Wash it by scrubbing the exposed surfaces with detergent (not soap) and a stiff toothbrush. Thoroughly rinse the model by holding it under running water. Let the model dry in the air for a few hours, turning it every so often to be certain any trapped water runs out or evaporates. You can speed up the drying process by using a hair dryer set on a minimum setting or by using air

pressure through an airbrush to blow water from crevices.

Select the paints to match the prototype based on your research. Read the chapters on airbrushing for some experienced modelers' advice on special paint effects that might influence your choice of paints.



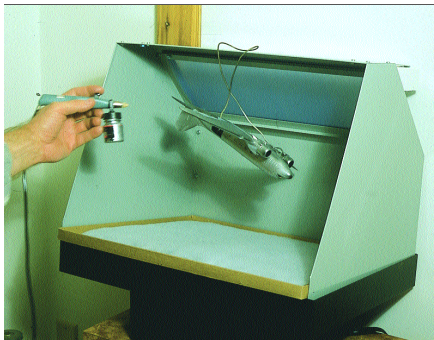
3-2 Wash the model with ammonia or detergent, then protect it from greasy hands by wearing disposable cotton gloves every time you handle it.



*3-3 Paint the interiors of the cockpit, bomb bays and landing gear bays before assembling the model.*



*3-4 Finish the cockpit interior paint and detail, then attach the canopy with Clear Part Cement.*



*3-5 Bend a wire coat hanger to hold the model while you paint it with an airbrush.*

Begin by painting all the interior surfaces of the cockpit or driver's compartment, the inside of wheel wells, and areas visible through any open doors or ports. This painting is best done while the model is still in pieces.

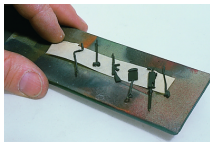
Next, install the clear canopies or windows. Plastic cements and cyanoacrylates can frost clear plastic, so it's safest to install them with a water-base cement like *Model Master #8876 Clear Parts Cement*. Mask them with either

*Model Master #50622C Masking Tape* or *#50641C Parafilm M Masking Material*.

The masking should stay on these areas throughout the entire painting, decaling, clear coat process, and weathering to protect the clear plastic surfaces.

#### **PARTS HOLDERS FOR PAINTING**

Cut some wire coat hangers and bend them into large C-shapes so the ends will



*3-6 Loop Masking Tape to provide a sticky surface to hold small parts for painting.*

spring outward to hold the model firmly by inserting the ends of the coat hanger through openings for the engine, landing gear or the accessible parts-attaching slots or holes. Be sure the hanger holds the model firmly. Use it to rotate the model into any position to apply the paint.

Make holders for the smaller parts from scraps of 1/4 x 2-inch wood slats (old wood or metal venetian blind slats are perfect). Form Masking Tape into four to six-inch-long loops with the sticky side of the tape out. Press one half of the loop onto the slat and you'll have a sticky surface (from the remaining half of the Masking Tape loop) to hold those small parts. Press the small parts onto the sticky tape. Paint one side of the small parts and let the paint dry. Remove the parts and apply new tape, press the parts onto the tape with the unpainted sides exposed, and finish painting the parts.

### **PAINTING TECHNIQUES**

Major portions of the later chapters in this book are devoted to airbrushing techniques because airbrushing is the method of painting that has been proven, by virtually all experienced modelers, to produce the best results. Refer to those chapters now to learn which airbrush, air supply and equipment to use and for step-by-step instructions on how to apply Model Master paints with an airbrush.

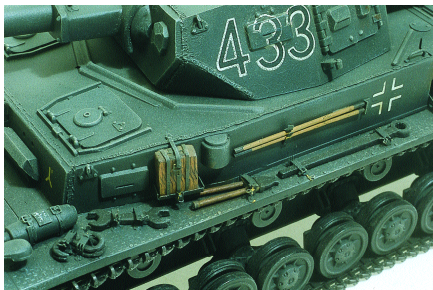
You can apply Model Master paints with a paint brush. If you opt for the paint brush technique, your choice of camouflage patterns and weathering will be extremely limited, but it certainly is possible to finish a model with this method. Use the best brushes you can find like the *Model Master #8841 Number 2 Red Sable Round* for smaller areas, the *#8861 1/2-inch Black Sable Flat* for larger areas and the *#8842 3/0 Red Sable Round* for details. Paint the edges of any colors with the number 2 brush, then fill in the larger areas with the 1/4-inch brush, overlapping each stroke. Use enough paint on the brush so the paint will flow and settle on its own to minimize visible brush marks.



*3-7 Apply several coats of Decal Setting Solution to force the decals to settle into the seams.*

### **DECALS**

On most prototype aircraft and armor, the markings are painted on, unlike the full-size stickers used on some modern trucks. The goal, then, for applying decals is to make them look like they were painted onto the model, not applied as separate stickers. If you simply slide the decal in place, air bubbles, some of them almost microscopic in size, will produce a slightly hazy effect, known as "silvering." You can eliminate the silvering by using the *Model Master #2146 Decal Setting Solution* or the stronger *#2145 Decal Solvent Solution*. These solutions actually dissolve the decal enough so it hugs onto the painted surface just like another layer of paint.



*3-8 This Italeri Panzer IV F2 has been superdetailed by Doug DeCounter with On the Mark etched brass tool brackets, jack holders and barrel-cleaning tool brackets. The barrel-cleaning tools are plastic rod. The 433 numbers are Tamiya decals.*

### **APPLYING DECALS**

The Model Master II paints are formulated with just enough gloss so you can apply decals directly to the paint. With all other flat or no-gloss finish paints, you should apply a coat of clear gloss to minimize the forming of those microscopic bubbles beneath the decals that make them appear frosty. If you have to cover a very large area with a decal or apply a decal to a surface that is convex in shape like the nose of an aircraft model, the decal will fit more easily if you polish the surfaces painted with Model Master II paints with a clean cotton rag.

Most decals have a clear film that extends about 1/16 inch from the outer edges of the decal. On most models, that clear film will disappear after the final clear coat is applied. If, however, you are applying the decals to a model painted with a metallic finish or with a light color like white or yellow, the clear film

should be trimmed before the decal is soaked in water. Place the decal on a piece of glass or Plexiglass and use a sharp hobby knife to cut through both decal and paper.

The decals included in kits and most of those sold as accessories consist of a series of layers that begin with a piece of paper, then a layer of water-soluble glue, several layers of ink, and a final layer of clear usually called the decal film. To apply the decal, first cut it from the sheet so you are only handling a single decal at a time. Dip the decal in warm water and set it on a piece of paper towel for about a minute while the water has time to soak through the paper backing to reach the water-soluble glue to dissolve it. Do not soak the decal in water for too long, or the glue will dissolve, and the decal will be far more difficult to apply.

You can test the decal to see if it is ready to be installed by trying to move it on its paper backing with a small brush.

## **MAKE DECALS LOOK PAINTED ON**

The Decal Setting Solution partially dissolves the decal so it will be almost as soft and pliable as wet paint. It takes a few minutes for the solution to soften the decal. It is during this time that you can move the decal into position. If you wait too long, the decal will be too soft to move. If you need to move a partially softened decal, you may be able to add enough water so the decal will literally float above the solution. Pick very, very gently at the edge of the decal with a 3/0 paint brush to lift it enough for the water to work beneath it. It's a tricky process, however, and the chances are good that even an experienced modeler will ruin the decal, so it's wise to have the decal positioned before you even remove its paper backing.

When the decal is soaked long enough to slide from its paper backing, use a number 2 paint brush to apply a coat of Decal Setting Solution to the area of the model that will be covered with the decal. Pick up the decal and the paper backing with tweezers and position both decal and paper where you want them. Hold the surface of the decal in place with that number 2 paint brush dipped in water and slide the decal just far enough off the paper so you can grip an edge of the paper alone with tweezers. Use the tweezers to pull the paper from beneath the decal while you hold the decal itself with the paint brush. If the decal will not move with the pressure from the paint brush, add some more of the Decal Setting Solution. The goal is to have just enough water and Decal Setting Solution so the decal will move, but not so much that the decal literally floats. If you do use too much fluid, touch the puddle at the edge of the decal with the corner of a piece of facial tissue and allow the facial tissue to wick away the excess fluid. Do not touch the tissue to the decal or attempt to wipe away the water and fluid.

When you are pleased with the decal's position, use the tissue to wick away any excess fluid, then cover the outside of the decal with a second coat of Decal Setting Solution. Do not touch the decal for at least three hours because it will be about the consistency of wet paint. During this time, the decal should begin to conform to any irregularities in the surface of the model.

## **DEALING WITH STUBBORN DECALS**

If the decal is positioned over a panel line or a door or hatch seam, you will have to apply at least one more coat of Decal Setting Solution and, perhaps, as many as a dozen coats. If the decal does not respond in about an hour, you can use a stronger decal softening agent like *Model Master #2145 Decal Solvent Solution*. This solution is stronger and works even faster. After a half dozen applications of Decal Setting Solution and five or six hours of drying time, the decal should conform to every irregularity. If, however, the decal still is not nestled into the seams around the doors or hatches, you may have to gently slice through the decal with a hobby knife. Do not slice the decal until it has had 24 hours to dry completely. After you slice through the decal, apply some Decal Solvent Solution to the cut edges so they will conform tightly to the model.

If you are attempting to fit decals over a convex surface, you will also have to use many applications of Decal Solvent Solution. Watch the decal over the first hour or so and, if it softens and tries to wrinkle over itself, use a number 2 paint brush dipped in water to smooth out the overlap. If the decal has lapped over itself after the Decal Solvent Solution has dried overnight, you may need to resort to trimming the edge of the decal to disguise the overlap.

When the decal work is finished, gently scrub the model with a cotton swab (moistened in water) to remove any of the residue left from the decal's water-soluble glue or from the decal softening solutions.

Apply a clear coat to protect the decal, and to blend it into the overall finish of the model. The clear coat protects the decal so humidity won't loosen it, and it blends the finish on the decal with the finish on the model so the decal truly does look like it was painted onto the model. You can apply any weathering coats over this clear and, if you wish, protect the weathering coats with another application of clear.

#### **DRY TRANSFERS**

Some accessory firms like Verlinden produce markings for aircraft and armor that are applied without water. These are called dry transfers and they apply just like a child's rub-ons. Each of the markings must be cut from the clear plastic sheet so you can position and apply them individually. Position the plastic sheet that holds the dry transfer with the hazy side up in the precise location you want the marking, then tape one edge of the plastic sheet to the model with *Model Master #50622 Masking Tape*. Burnish over the dry transfer with a number 2 pencil with a dull point. Carefully lift the edge of the plastic covering from the dry transfer, using the Masking Tape as a hinge, to see that all of the dry transfer has adhered to the model. If not, put the transfer down and rub some more. When the transfer is in place, remove the plastic sheet and Masking Tape. Put a piece of typing paper over the dry transfer and burnish the paper with the pencil to completely set the dry transfer. If the dry transfer is across a deep recess for the edge

of a hatch or panel, you may have to slice through it with a hobby knife and burnish the edge of the cut with the pencil tip. Protect the dry transfers with a coat of clear flat or gloss.

#### **CLEAR COATS**

Model Master II paints are formulated so you can apply decals directly to the paint with no clear coat. You will, however, want to protect the decals and blend them into the finish of the model with a final coat of clear. Model Master offers a choice of *Flat Clear #2015*, *Semi-Gloss #2016*, or *Gloss Clear #2017*, so you can match the overall finish of the model to the prototype. Although these clear lacquer formulas are completely compatible with all Italeri and Testor kit decals, you are strongly advised to test their compatibility when oversprayed on other manufacturers' decals.