

Using Testors Model Master Paint

Recommendations from the Testors Corporation

(Testors Model Master paint has been discontinued by the manufacturer. We have posted this because there's still a lot of Model Master out there and the tips herein are pretty good.)

Model Master professional paints for Military Models provide the hobbyist with a broad color selection including federal standard colors, clear over coats, detailing colors and an all-purpose primer.

What Is a Federal Standard?

All products manufactured for the U.S. Government must comply with specifications outlined in the many Federal Standard publications. Colors to be used are specified in "Federal Standard 595B."

Why don't Model Master FS enamels always match colors in FS595B?

FS 595B is to be used for reference only – not for determining color fidelity. Those small chips fade and become discolored over time. When contractors make paint for the government, they use special 3 x 5 colors chips issued by the General Services Administration (GSA).

Are Model Master enamels made this way?

Indeed they are. We use the same methods to determine color fidelity. After analyzing GSA color chips, our chemists developed working formulas. After the formulas were approved, lab samples were kept for future Quality Control (QC) work.

Why don't Model Master colors always match colors we see on that equipment?

Model Master enamels are identical to FS colors – as seen on new equipment. We duplicate them precisely. Only arbitrarily, however, can one duplicate colors that have been exposed to the sun. All paints fade and change color rapidly when left to the elements. If you want to build models of new equipment, Model Master paints insure authenticity. "In service" machinery must be weathered. Use Model Master colors then apply weathering techniques as outlined in the many fine "how-to" books available through your hobby dealer.

Can Model Master paints be made glossier or flatter?

They can't be made glossier, but by carefully stirring in talcum powder a color can be made flatter. You shouldn't need to do this, however, because all Model Master enamels fall within FS guidelines for reflectance.

What Is Reflectance?

Reflectance is gauged by a complex method of directing calibrated light at a painted surface. The amount of light is measured by a sensitive photocell and then converted to gloss meter readings which range from 0 to 100. According to the FS system, gloss colors reflect at least 80% of the light; from 30% to 45% defines semigloss; less than 8% reflected light defines lusterless (note: lusterless may be referred to as non-specular or fiat). All Model Master colors, including the three clear coats correspond to these categories.

Doesn't the FS number indicate reflectance?

Yes. And more. The 5-digit code was designed to identify the color-type numerically. The first digit signifies degree of reflectance: 1-full gloss; 2-semi-gloss; 3-lusterless. Specific color is identified by the second digit, e.g. browns are 10000, 20000, and 30000; reds are 11000, 21000, and 31000. The last 3 digits (with the exception of fluorescents) indicate general movements from darker to lighter tints.

How can I determine which FS colors to use?

FS colors are often called for in the kit instructions. If not, refer to books found in your library – or join a club like the International Plastic Modelers Society and discuss these issues with fellow hobbyists. Ask your hobby shop for the local chapter.

Can Model Master enamels be used in an airbrush?

Yes! Model Master pigments are finely ground to facilitate airbrushing. We also make a special thinner, No. 1789 (1-3/4 fl. oz.) and No. 1799 (1/2 pt.). Use 2 parts paint and 1 part thinner. (You may have to adjust slightly for temperature and humidity fluctuations.) This thinner is strong – allowing the paint to “bite” so do not use as a “wash.” It should not be used for cleaning brushes. For these purposes, use No. 1156 Brush Cleaner.

Is the Model Master system compatible with other paint systems?

Model Master enamels are compatible with all Testor solvent-based paints and finishing materials. Mixing Model Master enamels with other Testor enamels will produce excellent results. Because we are only able to control our own formulas, we suggest you avoid mixing Model Master paints with enamels produced by other manufactures.

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Model Master professional paints for Model Cars and Trucks provide the hobbyist with a broad color selection including international racing colors, modern metallic colors, standard production colors, a clear over coat (used for a hard, high gloss finish, and to achieve depth), detailing colors and an all purpose primer.

Features Include:

- Fast drying, glossy hard finish.
- May be airbrushed using Testor airbrush thinner.
- Compatible (mixed, thinned, or painted over) with Testor regular and Model Master solvent-based paints.
- Pearlescent metallics are transparent allowing use over any Testor base coat color, metallic or non-metallic, making it possible to achieve an infinite number of color variations for a truly custom paint job.
- Can be used on white “die-cast” metal (after primer), polystyrene, wood, glass, ceramic, stone, Styrofoam.
- Accurate color match between bottle and spray paints.

Getting the most out of the Model Master system.**Bottle Paint**

1. Whenever possible, paint should be stored at room temperature, away from bright light and heat sources.
2. Paint should be stirred thoroughly before each use. If one color is used for long periods, occasional re-stirring is recommended.
3. After use, bottles should be recapped tightly as soon as possible to minimize solvent loss.
4. When brush painting large areas, use a wide brush (1/4") -brushing to one direction with a minimum number of strokes.
5. To achieve the most professional quality finish, use the method the auto manufacturers do – SPRAY. All model Master bottle colors, and in particular the metallics, duplicate the actual automotive finish best when airbrushed (see Airbrushing Recommendations).
6. When desired for brushing consistency, thin all Model Master paints with Testor No. 1789 Thinner.
7. Brushes should be cleaned using Testor No. 1156 Thinner.

Spray Paint

1. Follow label directions closely regarding preparation, application, storage, and disposal.
2. Multiple thin coats are always preferred over single, heavy coats.
3. Superfine mist sprays can be achieved by placing the aerosol can in a shallow container of warm (not hot) tap water for approximately 1-2 minutes prior to use.
4. Before spraying model parts, always test spray a small flat panel (such as a piece of cardboard), to get a "feel" for the spray pattern and delivery rate of that particular color.
5. Remember to allow proper time between coats (see Special Hints).

Airbrushing

1. All Model Master bottle colors (including Primer and Clear Top Coat), should be thinned with Testor No. 1799 (1/2 pt.) Airbrush Thinner, a custom-made airbrush thinner for Model Master enamels.
2. Recommended thinning ratio is 3 parts paint to 2 parts thinner by volume. This ratio may be varied slightly depending on equipment and personal preference.
3. As there are many variables associated with successful airbrushing, always follow closely the recommendation of the manufacturer of your airbrush equipment.

Special Hints and Suggestions

1. All true automotive finishes require multiple coats to produce professional “depth” of color. This is especially true for the metallic colors which are semi-transparent. We recommend 2 to 3 light coats of color, followed by a single coat of clear top coat.
2. All solvent-based enamels have the potential of “self-lifting” when used improperly. This phenomenon is dependent on many variables with the result being a wrinkled finish. To avoid this, apply over coats of enamel or clear only after the previous coat has dried between 1-2 hours. If this is not possible, it is important to know that cooler temperatures and thick coats increase the incidence of self-lifting. To avoid self-lifting in extreme circumstances, wait 48 hours if you miss the 1 to 2 hour window. Waiting 36 hours will be sufficient 99% of the time; waiting 24 hours will suffice 90% of the time. If you feel that the temperature and thickness of coating will effect your finish be more careful. Do not overcoat during the period of 3 to 20 hours following the preceding coat.
3. The final color and hue of semi-transparent colors, such as metallics, is determined by the base-coat, with the final hue determined by the number of over-coats. For example, a silver base-coat produces a “cool” or neutral brilliance while gold tends to “warm” the top color. Experiment on a scrap of plastic before you paint your model. Metallics can be used on plastic without a base-coat, however, 2 or 3 coats will be required and the color of the plastic will affect the final color. Parts not molded in black or gray should be under-coated with No. 2937 Primer. After achieving your desired metallic finish, use one or more coats of clear spray enamel to add “depth.” Remember, experiment before you paint your model.
4. Model cars, unlike aircraft, should be painted in separate components, i.e. the body would be painted without chassis, interior, or clear or chrome parts installed.

Metalizer is a unique metalizing plate finish, especially formulated for all kinds of plastic models. It is a high quality product manufactured with the finest materials available. The Metalizer line consists of a wide range of buffing and non-buffing colors which allow you to duplicate any natural metal finish. No other product offers the capability and versatility of Metalizer.

Metalizer is also easy to use. All colors are pre-mixed for airbrushing – simply apply to your clean, unpainted model according to the following directions, let dry for several minutes, and then buff to a brilliant metal sheen with a clean, soft cloth.

In order to achieve optimum results, carefully read the information found in the Special Hints & Suggestions section of this brochure.

Special Hints and Suggestions

1. Make sure the plastic part to be painted is dry and free of dust, lint, fingerprints, mold release compound and any other foreign matter. Thin residual films of silicon (sometimes left on plastic pans as a result of the molding process) may be removed by cleaning with a small amount of rubbing alcohol or washing detergent and water. If a detergent and water wash is used, the part should be water rinsed and dried completely.
2. Shake the bottle thoroughly prior to use. Stir occasionally if one color is being used for a prolonged period. Recap tightly after use.

3. Metalizer products are recommended for all major kinds of airbrushes, both internal and external mix. Set airbrush at a “medium” setting and fine tune airbrush and pressure to personal preference and individual technique. If thinning is desired use Metalizer Thinner (No.1419) only. Model Master Airbrush Thinner is not recommended.
4. When using buffing colors, spray light mist coats and allow to dry for 10 minutes. Buff with facial tissue, cotton balls, or a soft cloth to desired sheen. For best results, begin by buffing very lightly at first, gradually increasing pressure as the finish begins to “buff up” to the desired.
5. Non-buffing Metalizer colors also are “ready-to-use” airbrushing lacquers. However, buffing is not required or recommended. The non-buffing colors represent a range of metallic shades and levels of sheen to allow for a variety of effects.
6. Metalizer buffing colors are compatible with all other buffing colors, just as the non-buffing colors may be mixed with each other to produce desired shades. “Cross-mixing” of buffing and non-buffing colors is not recommended.
7. Due to the unique nature of Metalizer coatings, the use of standard-tack masking tape is not recommended. Low-tack tape can be used successfully on non-buffing colors. Here’s another way to mask. To achieve a “dissimilar” panel effect – as on aircraft models – cut newspaper into strips and soak in water. Outline the area to be painted with wet strips. Soak up all water droplets with a tissue, then lightly airbrush the area. Remove paper and soak up water drops. Allow to dry and buff as usual. Note: when using the “wet masking” technique, best results are achieved by spraying dark colors first. Then, after placing the masking strips, airbrush the lighter colors.
8. Dry Metalizer finishes may be decaled as usual. Model Master Decal Set is recommended as a compatible setting solution.
9. Seal all buffing and non buffing colors with Metalizer Sealer (No. 1409). Clean your airbrush with Metalizer Thinner (No. 1419).
10. Metalizer can be over-painted with most hobby paint. As always, you should first test for overcoat compatibility before applying to the finished model.