

High Gloss Finishes



Gloss paint jobs require more work than flat colors; How much more work is up to the builder. Is a nice "shelf model" good enough or are you going for a contest win?

The basic steps are:

- Prep
- Painting
- Polishing

The following techniques and materials have worked for me; There are other methods and materials that probably work just as well, books

have been written on the subject and there are many tutorials on YouTube. But this process is guaranteed to produce a high gloss shine for you.

Prep

Gloss paint will highlight any flaws in the bodywork, so it is essential to remove mold lines, ejector pin marks and any sink holes or blemishes.

- Wash the parts thoroughly in warm soapy water to remove release agents, oils or other contaminants that will cause reactions between the paint and the plastic. **Do this before any sanding, as sanding may imbed any contaminants into the plastic.**
- Remove all mold parting lines, flash and other imperfections. Fill all seams, scratches, gouges and sink marks with filler.
- Fillers -Tamiya or Squadron putty (I prefer Tamiya) are the most common fillers but they are solvent based and will shrink. They work OK if kept under .015" thick. Bondo (Buy at Home Depot or auto parts stores) is the best filler for larger issues; It's a two-part catalyzed filler that can be sanded in 15 minutes and painted in 30 minutes. It's easy to sand and won't shrink.
- For good paint adhesion, the body must be primed. If you spray lacquer paint on bare plastic, it may craze. Primer will dry to the touch in a matter of minutes, but let it cure for at least two days, before painting the model. Primer that is still *gassing-out* can cause orange peel or alligating problems with paint sprayed over it. That's because paint shrinks as it dries and if the primer is still shrinking, it will may wrinkle the top coat (which is also shrinking but at a different rate).
- Primer will also reveal any issues with the body work. A "high-fill" automotive primer, like Rustoleum, should be used if you had to do

a lot of bodywork on the model. Most of the first "high fill" primer coat will be sanded off.

- Use the minimum amount of primer coats necessary to get the job done as too much primer will obliterate molded-in details, like emblems, and fill parting lines around doors and trunks.
- **As a rule of thumb, the final primer coat should always be the same brand of primer as the color coat.** But I've found that Tamiya primer is compatible with Testors and Rustoleum. If you are in doubt about paint compatibility, test it on a sample piece or a white plastic spoon before trying it on your model.
- Final wet-sand the primer with 2000 grit sandpaper. Mr. Surfacer is good for last minute spot repair of minor issues.
- Wash model thoroughly after prep and keep the surfaces clean. Let it air dry to avoid lint and fibers from towels. Wipe down with a tack cloth or microfiber polishing cloth before painting to remove any fibers or dust.

Painting

- What kind of paint to use? I won't get into all the options for paint (lacquer, enamels, acrylics etc.). Your best bet is to use paint specifically designed for plastic models, common brands like Tamiya, Testors, Tru-Color and Vallejo.
- Choosing a color.
 - Testors once had a broad selection of colors in spray cans, including metallics and pearls, designed for model cars. But since the parent company (Rustoleum) has cut back on producing hobby paints, many Testors products are

becoming difficult to find. Testors in the little square bottles have some good metallics but you will need an airbrush to apply them.

- Tamiya has generic colors in solids and metallics suitable for automotive use.
 - Tru-Color began with model railroad paint but has branched out into military colors and automotive. Airbrush-ready, their color selection is tremendous. But acetone-base Tru-Color is a different beast, not compatible with other brands; Stick with Tru-Color's own thinner, primer and clear topcoat.
 - General purpose brands like Rustoleum and Krylon have colors, mostly solids, that work for automotive.
 - MCW is a specialty company that makes factory specific colors for model cars [MCW Finishes - Model Paint, Factory Colors, Hobby Shop, Model Paint](#). Brookhurst Hobbies carries it.
 - Duplicolor is a brand of touch-up paint in spray cans that comes in a variety of automotive colors and is sold in auto parts stores. [Duplicolor - The leading manufacturer of Do-It-Yourself Automotive Paints & Coatings and Exact-Match Automotive Touch-Up Paint](#). Duplicolor uses a fast drying "hot" solvent, so stick with Duplicolor primer and clear topcoat.
- There are two ways to apply paint to a model car: with a spray can or an airbrush. Both work equally well
 - Spray Cans are the most common method of painting model cars. The paint will perform better if it's warmed by setting

5 minutes in a pan of hot tap water. Make sure it is well shaken.

- General purpose brands like Rustoleum and Krylon have nozzles that spray much too heavy for models. Too heavy a spray can obscure fine details, like emblems and cause other problems like sags, runs, orange peel and alligatoring. Better to decant (spray the paint into a container) and transfer to an airbrush.
- **Ideal temp for painting is 70-75, 65% or less humidity. Follow the manufacturer's recommendations.** Paint will not flow out smooth and even if ambient temperature is too hot or too cold.
- How many coats of paint should be applied?
 - Multiple light coats are preferable to a heavy coat.
 - First coat should applied as a light mist coat, get into all the nooks and crannies, door jambs, edges, engine compartment, under side of hood, etc. A mist coat should be thin, cover all areas uniformly, but not look "wet" when applied, it may even appear semi-gloss when dry. But if the paint is applied too thickly, it will have a tendency to pull back around details and edges, pool and leave a dark outline. Thin paint at edges will pose a problem of breaking through the paint in the polishing process.
 - Two coats of paint are usually enough. But if the color lacks uniform consistency, a third coat may be required.
 - **Follow manufacturers recommendations as to drying time between coats.** Otherwise the second or third coat may cause previous coat to wrinkle or lift.

- Painting angle, air pressure, painting on different days (humidity and temperature) affects the look of the paint. Parts painted separately may have indiscernible differences apart but will look like a checkerboard when assembled next to each other. So for the final coat, tape all parts together from the backside and paint at the same time.
- Some colors must be covered with a compatible clear coat. **Follow paint manufactures recommendations.**
 - As a rule of thumb, three coats of clear are recommended for proper polishing. It is OK to spray acrylic clear over lacquer or enamels, and it's OK to put an enamel clear over lacquer. **But, never spray a lacquer over an enamel or acrylic.** This is a sure way to craze the paint. If you are in doubt about paint compatibility, test it on a sample piece or a white plastic spoon before trying it on your model.
 - Clear coats can be a matter of personal taste but the "wet look" can be overdone, leaving the model looking like a piece of ceramic.
 - Apply any decals before the clear coat goes on.
- Paint flaws:
 - **Overspray** can be minimized by spraying from bottom up, not top down. Using a spray booth with an exhaust fan will minimize overspray. A little overspray is unavoidable and can be removed by polishing.
 - **Orange peel**, is the result of paint not flowing out and leveling. Caused by paint going on too thick, ambient

temperature too hot, paint or surface too cold, or primer coat not completely dry.

- **Alligatoring** is a cracking pattern that resembles alligator hide. Usually the result of applying incompatible brands of paint or poor surface prep.
 - **Fisheyes** are spots or craters in the paint job caused by dirt, oil, or other contaminants on the model. Wash thoroughly before painting and between coats.
 - **Blushing**, when the paint dries with a cloudy haze, is caused by painting when humidity is too high.
- It's important to allow an adequate drying time before polishing. I recommend letting lacquers dry a minimum of 2 weeks and 3 weeks for enamels and acrylics.

Polishing

- Polishing is essential for a contest quality paint job; The finish must be polished and buffed to a high gloss. I use micro-mesh polishing cloths because they leave no residue to be cleaned up like paste polishes. Purchase at [Micro-Mesh Finishing Kit \(micromark.com\)](https://www.micromark.com), or Novus [Plastics and Acrylics Restore | NOVUS Plastic Polish \(novuspolish.com\)](https://www.novuspolish.com).
- Your model will be subjected to a lot of handling during the polishing process; I recommended that you wear clean, white cotton gloves while handling the model (Buy them at the drug store).

- Using sequential grits from 3200 to 12000, apply very light pressure and let the grit on the micro-mesh cloth do the work.
- Be very careful around sharp edges and contours to ensure that you don't rub through the paint or clear coat. Polish the model until the entire surface has a uniform flat, dull surface. The first cloth (3200) removes overspray and imperfections in the paint, while the remaining cloths will gradually restore the finish to a glossy shine.
- Once you finish with the first cloth, switch to the next finer grit cloth. It is important not to skip cloths during this process. Each cloth will make the finish glossier. Continue working your way up to the 12000-grit cloth. After finishing with the polishing cloths, the model will have a smooth, glossy shine.
- Finally, apply a good car wax, like *Meguiar's Carnauba*. You can buy it at AutoZone. **Do not use a cleaner wax which has abrasives.**
- Buff the wax with a soft cloth, an old T-shirt will work., but micro-fiber is better. Tamiya and Novus have polishing cloths.