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Get It Right! Ford Engine Paint

The Right Stuff (In Engine Paint): An update on using the correct engine paints on Ford engines



Dave Stribling
May 16, 2018

Ford Engine Paints



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Like many hobbies, ours is subject to changes as the years go by. Parts available directly from Ford are mostly gone, products that were once available are not, and new products are popping up that are better than what we had before. In this day and age, a lot of information and missing information is floating around online, and sometimes we need clarification of what is known.

The last time we talked about painting your engine was 15 years ago, and plenty has changed since then. Due to the efforts of some really smart people, we know much more about the painting process than we ever knew. So it is time to update our stance at the magazine as well. Hopefully we can help you wade through some of the confusion that is out there and avoid the problems with judging of your car, should the issue arise.

History

Ford produced all its paint in Mt. Clemens, Michigan. Apparently Henry Ford was stingy with paint and didn't want to waste a drop. When Ford was painting the exteriors, they would have a panel spray-out and that batch of paint would have to remain within a certain range as the batch went through application. This didn't mean there wasn't variances in the painting process—there were. Exterior paint varied all over the place, and cars painted in different months from different batches may not have been the same shade. With

engine paint, Ford had much less interest in maintaining color than they did on the exterior paint, and the color could vary considerably. This has caused issues in judging on certain colors being too dark or too light.

Another interesting note is that you can't paint your engine with what Ford used. When Ford was painting these engines, they were making them by the tens of thousands (one million Mustangs by 1966 anyone?). That is a lot of engines to paint, and when you are mass-producing engines, residual grease, machining fluids, coolants, and sealers will make their way onto the outside of the engine where the paint would be applied. To combat this, Ford used a very high lead content paint to get it to stick to the engine. When you see an original engine, the paint is usually gone in big sections—this is usually due to adhesion issues stated above. Lead paint is long gone, but you will hopefully prep your engine in much more depth than Ford did.

Paint Color

Much has been said about the correct/incorrect paint colors in the past. The truth is, the paints varied considerably, and there is no such thing as "correct." Some very sharp minds have documented the paint colors from different years/plants and engines, and a database is starting to grow about what the shade was at a particular time. However, it is very incomplete. There is a lot of information on the Internet about "use this" or "that is wrong," and some of it is valid and some of it is simply passed on from what someone heard.

The best way to decide the correct color for your engine, assuming it hasn't been repainted at some point, is to take a sample of the paint to an automotive paint mixer and have them scan the part (e.g., valve cover, air breather) and get the closest match. This is not the perfect solution, but it is the best option. Not only did the paint vary, but the number of heat cycles the engine went through can discolor the original paint, and after 50 years the paint will change color through aging. The computer scanner used by your paint mixer is only giving you the closest match that the computer can make, not the actual original color.

This is especially true for companies that were not around back in the sixties (most of the European manufacturers like Spies Hecker and BASF were not in business stateside and their mixes are usually crosses to something else). For example, when scanned by one of my suppliers, 1970 Ford Grabber Blue came up as a 1983 BMW color. A really good match, but it wasn't technically Grabber Blue. Even with the stateside brands, the mixing bank colors change frequently, and the older the paint the more difficult it is to match. Most engines are painted with single-stage enamels rather than two-stage base/clears, and single-stage enamels are going away because nobody uses them anymore. Because of this, the mixing bank colors for the single-stage paints may be older and going bad (I had some paint that was contaminated because they just didn't use single-stage enough). The paint computers need a credit card flat area to get an accurate reading, and finding flat areas on an engine can be challenging.

If you don't have any original paint left on the engine, then you are relegated to using something that someone else is going to recommend (Mustang parts supplier, online blog, or a concours judge, for example). Even then, it can be a challenge getting the right paint for your engine. Top judges know what to look for, but you might not. They also know that the color varied, but they also know what is within the range of acceptable color. To help with the show judging, some mixes have come out to be close to what Ford intended the color to be, not necessarily what was actually sprayed on your engine.

[Prepping your engine for paint is changing again for our hobby. Paint that was once the standard is now gone, and new products have come up for sale that work very well. Time to update our knowledge base. Engines with original paint on them are getting scarce now. If you are fortunate to have some of the original paint on your engine, you can get it matched at your local paint store for the "correct" color. There are several blends for different shades of Ford blue.](#)

Automotive Paint vs. Aerosol

Top restorers have been using automotive-style paints rather than aerosol spray cans for a long time, even though most engines are still painted with aerosols. There is nothing really wrong with aerosols, but better results can be achieved with catalyzed automotive enamels. Here are some reasons you should think about using a catalyzed paint over an aerosol:

1. The catalyzed paints harden through a chemical process, not through air drying like aerosols. Because of this, the catalyzed paint is harder than the spray can version and holds up better.

2. The automotive paint is a better quality paint, and I believe it does not discolor as fast as the spray can paint. This is especially a concern around the exhaust ports where the paint is subjected to very high heats.
3. Color control. All paint is subject to quality control, whether it is the batch mix on an aerosol or the operator mixing the paint. Buying a quantity of paint enough to paint your engine from the automotive paint mixer assures that the paint will at least be consistent. We have painted engines with aerosols and one can ran out, we grabbed the second can and it was a different color! If you do decide to use aerosols, try to get paint from the same batch mix so you don't have the problem we ran into.
4. Spray control: spray cans are made by the millions, and sometimes the nozzles clog halfway into the painting session and start spattering all over the item you are painting. This actually happened to us while we were preparing this article. Also, aerosols generally do not lay down as smooth as a paint gun, so the finish with the paint gun is much better.
5. When spraying metallic paint like the gold used on 1964-1965 four-barrel engines, a spray gun is much better at blending the color and avoiding issues like tiger striping. We find we have to use more paint in getting the striping out of the finish.

As I said before, there is nothing really wrong with using aerosols, we use them too. Just know that there are advantages to using a catalyzed paint through a paint gun.

[The computer analyzer at your paint store can only tell you the nearest “match” it has in its database—not the exact color that is on the part. Remember, 50-plus years of heating and weather can change the color of the part.](#)

Single-Stage Paints

Over time things become obsolete. Single-stage paint is one of those items. There are some restorers who would use base/clear on the engines, but most were using single-stage enamels. Suppliers like PPG were used to a great extent, particularly DAR Delstar acrylic enamel. A lot of the mix codes that enthusiasts were familiar with were PPG mix codes. PPG has begun phasing out the Delstar line, I assume because nobody uses it much anymore.

There is an alternative if you have a PPG mix number. Omni is still available at this time, and you can use the PPG mix numbers in the Omni line of acrylic enamels (or urethane, which may be a little more durable). Most paint mixers can cross-reference the PPG numbers into other lines of paint, and if you have an application rather than just a mix number, they can generally make what you need. We will attempt to give you application as well as paint mix number referenced below.

As far as shooting the paint, you have the option to shoot an epoxy primer if you wish. Some restorers shoot the paint without a primer, but we prefer to use a light primer coat to help with the paint bonding to the engine (remember, no lead content). The primer also gives a nice, even color to paint over, as you are painting over brass, aluminum, and cast iron. Depending on your paint, it might take several coats of color to get the overall look right.

1964-1965

At the beginning of Mustang production, Ford was painting its engines gloss black, and it differentiated them with different colors used on the valve covers and air breathers. Six-cylinder engines were painted a red color, the 260 V-8 was painted a light blue, the 289 four-barrel engines (A- and D-codes) were painted gold, and the 289 Hi-Po received chrome covers and air breather.

1966-1973

With some fanfare Ford made a decision to paint its engines Ford Corporate Blue in 1966, and this was to be the blue used through the rest of the first-generation run. At some point Ford began painting the valve covers on the engines as well.

[From left to right: PPG Delstar 13358 acrylic enamel was a very good representation of the Ford Corporate Blue used from 1966-1973. It is not available anymore, but you can mix it up in Omni with the same mix number. The POR-15 \(P/N FD CORP BLUE\) is a little darker but goes on great and is very durable. The Omni-Fill from NPD \(P/N AP-EB\) is a spot-on match to the PPG blend, and the VHT \(P/N SP153, Old Ford Blue\) is also a good choice. Our can of 1606 Dupli-Color that we recommended 15 years ago came out a little dark, so we would look at the other choices first.](#)

Ford Corporate Blue

No paint has generated more despair than Ford Corporate Blue. As mentioned before, Ford engine paints were not subjected to some of the standards that exterior colors were, and they varied considerably. While it was really light during one period of time, it was darker at another.

Top restorers have generally looked to PPG DAR 13358 as the standard of what Corporate Blue was intended to be by Ford. In researching original engines, top judges have found that there are a number of mixes that fit within the Corporate Blue family of color variations. If you don't have an original example from your engine to try to match, then the 13358 is a good choice for your engine. As stated above, you can still get it mixed in the Omni line for now.

For aerosol application, most Mustang vendors sell very good generic blue for the engine. The Corporate Blue sold by National Parts Depot (P/N AP-EB) I believe is an excellent match to the PPG 13358.

We originally recommended a Dupli-Color 1606 fifteen years ago, and the can that we purchased came out a little dark. We don't know if they changed the formula or if it was a batch mix issue, but it is much darker than the PPG standard. Also interesting to note, we used to shoot a lot of Dupli-Color and Plastikote, and these lines are beginning to be replaced by newer paints by companies like VHT. These new paints are what the auto stores are now stocking. The VHT I bought for this article (P/N SP153, Old Ford Blue—yeah, we're old now) turned out to be a nice representation of the Ford blue, if perhaps a bit on the bright side. We would not hesitate to use it if that is what is available in your area.

Some opinions have been made online about POR-15's engine enamel (P/N FD CORP BLUE), and I agree with some of them that it is a little darker than the PPG. However, if you are not doing a thoroughbred car, it is an excellent product and goes on with one coat and holds color very well. It is an air-dry product and takes a while to dry, but it also flows out very well.

[Dupli-Color 1605 Ford Red is still a good choice for the early six-cylinder valve cover and air breather. The PPG/Omni mix 73124 is a generic red color that matches well.](#)

Six-Cylinder Red

This color is probably the easiest to deal with. The Dupli-Color 1605 we recommended the last time is still a good choice for the early straight-sixes. If you want to shoot an equivalent catalyzed paint there is PPG 73124, which is one of PPG's generic red mixes and not really associated with a particular product line. It may cross to GM bright red, PPG 3794, which was used through the '80s and '90s. The 73124 is a spot-on match with the Dupli-Color red.

[The light blue used on the early 260 V-8s has been recognized as a real close match to Ford Grabber Blue. The PPG/Omni mix number for Grabber Blue is 2230. This can of Hi-Tech from NPD \(P/N AP-EBL\) came out a shade darker, and the Dupli-Color 1601 was an excellent match.](#)

260 V-8 Light Blue

The color on the 260 valve covers and air breather has been well documented to be a good match to 1970 Ford Grabber Blue. The PPG mix code for Grabber Blue is 2230, and can be crossed to most paint lines. In aerosol, the Dupli-Color 1601 is still a very good match to the light blue used.

[The original gold used on the 289 4-V engines was a soft gold, and the Dupli-Color 1604 on the right is not a very good match. NPD got with early Mustang expert Charles Turner and has the Omni-Fill \(P/N AP-EGC\), which is the best match we have seen so far. We found a mix for PPG that was a 1988-1989 Renault color,](#)

[mix number 26635. Some researchers think there was a later gold used that was closer to the 1966 Antique Bronze used on the exteriors. The mix number for Antique Bronze is 22603. If you think the color on your engine is closer to a bronze, this may be a good starting point.](#)

289 4-V Gold

The gold paint used on the A- and D-code engines probably has the least amount of information known about it. Several top judges also believe that there were two different golds—a softer gold used on early-'64-'65 engines and a later gold that was more of a bronze color. We have personally never seen the bronze version, but that doesn't mean it isn't out there. Most of the originals we have seen have been the softer gold shade.

In researching this part, we found several paints that don't work. The earlier Thunderbird, Lincoln, and FE engines were painted with a Castilion Gold, which we think has too much gray/green in it to match the Mustang color. Also, some early paint books reference an under hood gold, and this was brighter than the soft gold.

How we came up with paint codes was to take a part that had been painted from an exact color match of an early car. The valve cover was sent away to a lab (not the local paint store) where it was analyzed with a very expensive multi-plane color analyzer. Unfortunately, this came out as a custom blend and the paint could not be duplicated. So we took the painted part to my paint mixer and had it zapped with the computer color analyzer. The closest match turned out to be PPG 26635, which is a 1988-1989 Renault color New Beige Poly.

The good news for aerosol users is that National Parts Depot contacted early-Mustang guru Charles Turner and got ahold of some early top end parts to match their gold paint (P/N AP-EGC), and it is a spot-on match to the soft gold on early cars.

For the later bronze version, some restorers are saying that the 1966 Antique Bronze color is a good match (PPG 22603). Finding a good aerosol may be difficult. We have never seen this tint on an engine, so research this carefully before committing to this color for your engine.

Finally, we have been using the Dupli-Color 1604 Universal Gold for so long, we almost forgot how pretty the softer gold Ford used actually was. The 1604 is much darker and not a good match for the early color.

We may find ourselves having to update this list sometime in the future, but for now, this should get you on the road to success in getting your engine painted the right color. We'd like to thank the Jim Cunningham Archives, Charles Turner, and my paint mixer, Tom Timmons, for their help in gathering some of the info for this venture.

[This engine was painted with the POR-15 blue and it is a little dark, but it is also not a concours engine so isn't as big of an issue. The engine shade will also look different outside in the sun and in the shaded engine compartment of your Mustang.](#)

[Buy at least two cans \(and maybe three\) when shooting your engine. One thing you will want to look for is cans from the same batch mix. It is usually printed on the bottom side of the can. Paint can vary from batch to batch, and if you need to do touch-up work later you want to make sure your cans of aerosol match each other.](#)

Color Chart/ Part Numbers

The following is a recommendation on where to start in selecting the right color for your engine. There are other paints that will work just as well, but these appear to be very good samples of the color Ford intended.

Application	PPG Mix Code/Color	Aerosol Option
1964-1965 Engine Block	DAR-9000	Any gloss black engine enamel
1964-1965 Six-Cylinder	73124 Red	Dupli-Color 1605 Ford Red
1964-65 260 V-8	2230 Grabber Blue	Dupli-Color 1601 Ford Lt. Blue

1964-1965 289 A/D-code (early)	26635 Renault New Beige	NPD AP-EGC Ford Engine Gold
1965 Late A-code (unconfirmed)	22603 Antique Bronze	N/A
1966-1973 Ford Corporate Blue	13358	NPD AP-EB Ford Corp Blue

Sources

Dave Stribling Restorations

(765) 362-1967

<http://www.davestrib...>

National Parts Depot - Florida

Ocala, FL 24474

800-874-7595

www.npdlink.com

National Parts Depot - North Carolina

Charlotte, NC 28262

800-368-6451

www.npdlink.com

National Parts Depot - Michigan

Canton, MI 48188

800-521-6104

<http://www.npdlink.com>

National Parts Depot - California

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