

## How to Protect Your Cars Paint Finish

**A** coat of wax is nothing more than a clear, sacrificial protectant for the painted, clear coated, polished, chromed and almost all other areas of your car except the rubber parts. It is far better to have ultraviolet rays, ozone, acid rain, tree sap, road tar, and all the other road hazards attack a coat of wax than attack your paint. The wax can be refreshed with little effort and cost, whereas replacing paint can be somewhat financially painful. A good coat of wax will also add "depth of shine" and reflective gloss to the finish, but cannot transform a neglected or abused finish from a pile of rubble into a Pebble Beach Concours winner. For a wax to be effective, it must be applied to a clean surface, as it will enhance the gloss as well as the defects of the surface.

Carnauba wax is the protective coating of the leaves of the tropical Carnauba plant. Pure Carnauba wax is the consistency of a brick. To be useful as a car wax, solvents, lubricants and numerous other additives must be blended with the wax. If you see a wax advertised to be 100% Carnauba wax, they are really saying that whatever wax there may be in the can is 100% Carnauba (one advertised "100%" brand that comes to mind is actually 5.3% Carnauba wax and 94.7% who knows what). There are also numerous grades of Carnauba, and the top grades are expensive, so a high content percentage may not tell the whole story. The top grades are #1 white and # 1 yellow (no, it does not come in blue). Some of the better waxes on the market are about 25% to 35% #1 Carnauba. Carnauba will produce, in my humble opinion, the best depth of shine of any type of wax on the market. You may also apply several coats of a quality Carnauba wax over a period of time without getting "wax buildup". The downside is that Carnauba is somewhat sensitive to excess car wash. A very strong solution of car wash or the use of dish detergent will tend to strip the wax. The use of the minimal amount of car wash in your wash solution will help your wax last a lot longer.

There are two forms of wax, paste and liquid. They differ basically in the amount of solvents. Rock hard Carnauba is diluted with solvents to either the paste form or further diluted to the liquid form. When you apply a paste wax, the friction of application helps melt the wax and evaporate the solvents. A liquid wax usually contains more volatile solvents that evaporate out when the wax is applied. The excess wax, left over lubricants, excess bonding agents, solvent residues and whatever else is left forms the "haze" that is buffed out to reveal the wax.

The polymer-based waxes tend to last longer, yet do not seem to give the same depth of shine, as do the Carnauba waxes. As a general rule, depth of shine and longevity are opposite ends of the same scale. Polymer waxes are also usually less sensitive to excess car wash. They do seem to be somewhat more hydroscopic (absorb water and become cloudy) than the organic waxes. If you are using a polymer based wax on a German paint and have hazing or clouding of the wax, about the only thing that will work is to strip the polymer wax and re wax with a Carnauba based wax. German paints hate polymer-based waxes. I have spoken to paint chemists, the Glazurit people, Porsche, BMW and M/B people and to date have not gotten a viable reason for this. I have gotten a lot of mumbling and shuffling of feet, but no hard and fast answers. The American and Japanese paints can tolerate polymer waxes. The German paints just

don't seem to react well with most of these products. There are also highly advertised Teflon based products on the market. It is my understanding that it requires a 600 plus degree environment to bond Teflon to your paint. So, unless you are applying it with a flamethrower, you may not be getting all you paid for. (In the same vein, just be glad you are not getting all the government you are paying for). The polymer-based products will also tend to build up with several applications and this buildup may turn off color over time. The solution to this problem is to strip everything off and start again.

Prior to applying any wax, thoroughly wash the car with a quality car wash to remove any grime, bugs and tar spots. If washing does not remove all the flora and fauna, then a stronger cleaning agent may be necessary. There are several quality citrus degreasers or bug and tar removers on the market. Some of my favorites are P21S Total Auto Wash (a citrus degreaser), Wurth Citrus Degreaser, Wurth Tar Remover, Sonax Tar Remover and One Grand Tar, Wax and Gum Remover. I have found that the citrus degreasers work better on the organic type contaminants such as 100 M.P.H. bug trophies and tree sap splotches. If you have parked under a tree and found a coating of very, very small hardened dots on your car, this may not be tree sap. It may be in fact the result of aphids and other little varmints in the trees making anal statements. Try removing these aphid presents with a strong car wash solution. If this does not work, try using a degreaser on the remaining spots. The tar removers seem to work better at removing road tar spots. Rewash and rinse any areas you have cleaned with solvents thoroughly to remove all traces of the solvents. If you have "tar spots" on your wheels, they may not in fact be tar, but are probably brake dust residue. This is a residue from the polymer matrix of the brake pads that has melted and re-polymerized on your wheels. Tar removers may help remove them, if not, Oil Flo Safety Solvent is usually effective.

Well, it's time to wax your pride and joy. "Honey where is the Pledge? I want to wax the car". Just kidding, unless you own a '34 Cord Laminated Beachwood Boat Tail Speedster, I would stick with a quality car wax. One of the keys to applying car wax is to apply it sparingly. Assuming that the finish has just been washed and dried and is free of grit and does not need glazing/polishing, then apply the wax with a small piece of 100% cotton cloth or a terry cloth covered sponge or a foam type applicator pad. An even better method of application for a paste wax is to use your fingers. Hold your fingers together to form an "applicator". Rub the wax thoroughly into the surface. Your fingers will give you the tactile feedback to let you know when the wax has been worked into the surface. The heat of your body will also melt the wax and help it flow onto the surface. This is NOT a situation where a little is good, so a lot must be better. Your paint will only accept X amount of wax. If you apply 100 times X then you will have to remove 99X in the form of dried powder. It will make waxing more difficult, require more buffing and create clouds of white dust.

Make sure the paint surface is cool. Rule of thumb #1, if you can hold your hand comfortably on the paint, then it is cool enough to wax. Work in the shade, preferably in a garage. Open your can of wax, get a small amount on your fingers (or cloth/pad) and recover the can (this keeps dirt out of the can). Apply to the paint surface, rubbing in a linear motion. Work into the paint in a front-to-back, back-to-front motion (the way the air flows over the car). Don't go around in circles the way dear old dad taught you. If you are using a pad and airborne grit gets under the pad, you have made sandpaper. If you are working in a circle, you have made a 360-degree scratch (or swirl mark). Since a scratch or swirl mark is most visible from a 90 degree viewing angle, a circular scratch is visible anywhere. If you work in a linear

motion, and scratch the surface, the linear scratch is only visible from a small viewing angle. Using only your fingers to apply wax will give you the tactile feedback to know when surface grit is about to scratch your paint.

Work the small amount of wax into the surface until all that remains is slight haze. Use of your fingers will also tell you when the wax has been thoroughly worked into the paint and will help prevent you from using too much wax. Most waxes work best when this slight haze is allowed to dry. Complete the application on one section of the car such as the hood, trunk, fender, etc. Buff this section and then move onto another section. There are some waxes that require you to buff immediately after applying to a small 12" X 12" section. Zymol or P21S are classic examples of this type of wax. If you allow Zymol/P21S to dry before buffing, you will need a belt sander to remove them. Read the directions on the can to determine the proper method. Buff out the slight haze with a soft 100% cotton cloth. Buff a small section; shake out the cloth to remove any grit and rebuffer with a new section. Keep using new sections of and change cloths frequently. I use old flannel sheets. They are super soft and produce a brilliant shine. Move onto another section of the car. Repeat the application and buffing procedures. When the car has been completed, return to the first section completed and rebuffer with another clean cloth. The wax has had time to harden off and this extra buffing will bring out a rich, deep shine. If there are areas that are hazy or cloudy, and you are using a Carnauba based wax, the wax has become hydroscopic and has absorbed a little water. Mist the cloudy areas with a small amount of water (a plant mister works well) and rebuffer. This should remove the clouding. In certain very high humidity situations, the wax may not dry properly. The cure for this problem is to allow the car to bake in the sun for a day or so and then rebuffer. The heat of the sun will usually dry the excess moisture and the buffing will bring out a deep shine.

Another trick to buff out any cloudy areas is to mist the area with One Grand Show Off or Meguiar #34 Final Inspection and buff out. This will usually remove all traces of trapped water and produce a deep rich shine. These two products are also handy to remove water spots from well-waxed surfaces. Make sure the surface is clean and free of grit, spray on and buff out. The gloss enhancers and liquid wax ingredients will restore the deep shine,

All cloths you use on your car should be 100% cotton and should be washed in the washing machine using only detergent. Do not add any fabric softener to the water. Dry them in the dryer and DO NOT use a dryer anti-static towel (I think that's what they are called). These dryer towels contain coatings that are transferred to your car cloths and may cause streaks. If you have ever had your wax streak and you could not figure out why, your dryer towel was probably the culprit. You will remove a giant ball of cloths and static electricity from your dryer, but will not have mysterious streaks.

These are some of my favorite waxes. There are positive and negative attributes to each one. There is no such thing as the "right" wax. If your car is a daily driver and is left out in the mud, rain and sun all day, then you may consider Blitz Wax. If on the other hand you have a "garage queen" that sees sunlight on weekends only, you may consider either the new P21S or Zymol waxes.

**BLITZ WAX...**A quality Carnauba wax that produces a deep, durable shine and protects against the harmful elements. Contains no cleaners or abrasives. Easy to apply and easy to remove; yet long lasting. This is my favorite wax for most applications.

**HARLY PASTE WAX...**Made from the highest grade of Number One Yellow Carnauba, the worlds hardest and finest wax. Relatively easy to apply, a little difficult to remove. Contains no extenders, cleaners, admixtures or abrasives. This is a purist's wax.

**3M SHOW CAR PASTE WAX...**Shines and protects new and like new paint finishes, producing a high gloss, durable "wet look" finish. Contains both carnauba wax and fluoropolymers to produce a durable finish. For best results, apply to a small area and immediately buff out; otherwise the wax residue may be somewhat difficult to remove. May cause slight clouding on certain German finishes.

**MEGUIAR #26 HI-TECH YELLOW WAX...**A blend of premium yellow Carnauba wax, polymers and other waxes to provide maximum high gloss protection while enhancing depth of color. Will not streak or chalk on any previously cleaned and polished finishes. Available in paste or liquid. This wax will last on daily driver cars, but does not give quite the shine of Blitz. May cause clouding on certain German finishes.

**MEGUIAR #34 FINAL INSPECTION...**A lubricating gloss enhancing spray that adds shine, slickness, depth of color and protection in one step. Great for spot cleaning and maintaining a high gloss shine between waxings.

**MEGUIAR MEDALLION FOR ALL PAINT...**The polymer cationic bonding system produces a super slick finish. A blend of paint nutrients and conditioners, that lasts much longer and reduces static so finish is not a "dirt magnet". Some German finishes have had hydroscopic reactions (clouding) with this product. A great product for very dusty climates.

**ONE GRAND SHOWOFF QUICK DETAILER...**A solution of liquid waxes and gloss enhancers to give you car that "just waxed" look. Mist on and buff out for a brilliant shine between waxings or to remove "water spots" after washing.

**P21S CONCOURS LOOK CARNAUBA WAX...**A new wax developed to compete directly with Zymol. Produces, in my humble opinion, the best depth of shine of any wax on the market and lasts a little longer than Zymol. We are not talking quantum leaps, but has a slight edge. Does not offer the pina colada experience. My favorite wax for a "garage queen" or a frequently waxed car.

**SONAX HARD WAX SPRAY...**Same hard wax as the liquid in a pump can. Great for wheels, wheel wells and other difficult to reach areas that need a coat of wax. Does not chalk or turn white.

**ZYMOL CARBON /CREME WAX...**Carbon formula is for dark colors. A totally abrasive free wax containing nutritive oils, enzymes and pure Carnauba to replenish both new and older finishes. Can be

used on chrome, alloy wheels, rubber or plastic trim and Plexiglas with no chalk residue or staining. This is the "pina colada" experience in a can. Produces arguably one of the best depth of shine on the market, but does not last. Some have said it lasts about as long as it takes to apply it.

If you have any questions or if you need any further information, please feel free to contact us.

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