

Buffing / Polishing Basics

This is a follow up to the workshop presentation that we had last weekend. Hopefully I can capture everything we discussed and bring it all into this overview. If I missed something or if you have any further questions my email address will be at the end of this pdf., so feel free to reach out to me if needed. **Important note:** Always work with a clean car! Washing the day before is a good idea. Also, consider applying masking tape over areas like the edge of your soft top. Compounds and polishes can absorb into the top and other fabrics/materials and be very difficult to remove. This material also likes to go up under moldings, hoods and door jambs. When you are finished always wash the car well and remove any leftover materials. If you have a pressure washer this works even better to remove the old material from the tight areas. Letting these materials sit for a day or so will only make removing them more difficult!

Buffing/Compounding – Normally this method is used to attempt to restore the paint surface and expose a new layer paint that can then be polished. This is done by removing a very small top layer of paint. With this process comes the risk of removing too much and exposing the unpainted layers below (burn through). Therefore, it's a good idea to understand how much paint is on the car to begin with and how many times the paint has previously been buffed. You may not actually know this detail, especially when buying a car second hand. At this point it then comes down to more of just a good guess and the need to do this.

Compounds come in many forms such as, course, medium and fine and numerous brands. Try to stay within a brand system or paired system as the results normally turn out better. Always read the instruction. Here you will find the cutting level. Normally you will see this compound can remove sanding scratches ≥ 1200 grit so this example would fall into a course cutting category.

After you have used the compound, you will need to repeat the process but with a finer compound or a swirl mark remover. This process will eliminate the scratched left by the course or previous compound. E.G., if you start with a medium cutting compound then its normally ok for next step to be the swirl remover. If you start with heavy, then you would normally apply the medium and then the swirl remover. It also depends on the effect you have after the compounding. Darker colors show a lot more and therefore may require several steps using finer materials in 2-3 steps. Just remember, stay off edges and body profiles as these surfaces causes the cutting action to be accelerated. You want to hit theses areas at the end but much lighter for this reason. Lastly, always try to use the least aggressive compounds, or use a compound that is needed for the condition. In other words, if your paint is heavy oxidized you would not want to start with a medium or fine compound. A heavy cutting compound would be the likely choice. **Heavy Compound -> medium compound -> swirl remover -> Polish**

Polishing – Just as the word means, you are polishing or bring a shine to the surface. If the paint is in good shape and you just want a better shine, then this is the option you should consider instead of compounding. In this category you are working with fine compounds and polishes. If you have compounded the painted surface, you will need to continue with this process to eliminate the compound marks as mentioned above.

Materials – 3M A_B_C, Pace heavy, medium & polish are the examples I shared at the workshop. 3M kits runs about \$100.00, Pace in the 16oz sizes are around \$60.00. Either product is a very good choice.

Buffing pads – Two main type are Wool and foam

Wool – There are white pads for cutting and yellow for pads for finishing. These two in combination work well and produce good results. Some people even come in with a fine foam pad for the final finishing. Wool pads are typically used on ROTARY MACHINES and this process can be challenging for the “first-timer”. Rotary machines need to be respected and can easily get away from you... If you can imagine the rotary floor buffers. Not that bad, but in some cases with inexperience it could be.

Foam pads – course, medium and fine, finishing.

There are different types of foam pads, and they must be paired accordingly to the compounds and polishes. If you are compounding, then you would consider using a course or medium foam pad. Fine or finish foam pads for polishing. I recommend writing on the back of the pad what you are using it for and storing them in a zip lock bag after cleaning. Try to avoid using the same pad for different materials. When you are finished its best to wash them with water and let dry before putting them away. If material dries on the pads and they are not properly cleaned before the next use, you could end up with some micro scratching and waste a lot of time with repeat work.

Polishing equipment – random orbital and rotary

Random orbital – This is the preferred machine since its cuts slower and it less forgiving and produces a better end effect. The pad rotates and oscillates which helps to eliminate swirls and halos that a rotary creates. Cost ~ 75.00 and up. Consider FB marketplace, eBay and flea markets for a used machine. You can save a lot of money and get better equipment using this method.

Rotary machines – Just as it says, it only rotates, like a grinder. Commonly used with wool pads but foam pads also work very well. The cutting action is stronger and more refined with this machine. Often you will need to finish out with a foam pad. Pricing similar to the above but can also be a little cheaper.

Application – Normally start by applying four dots (dime size) of material to the surface of the pad (3,6, 9 & 12 o'clock position) Place the pad onto the surface and slowly start the machine. Let the machine do its work, so minimal pressure is all that's needed. Work an area of about one square foot and then repeat the process on a new section. Repeat as needed. The machine need to be of a variable speed type. In this process you would be using something in the medium speed range.

When you are finished, you always want to wipe any excess or remaining residue from the surface before going to the next step. This will help a lot with the finish results.

Sanding – wet and dry

I saved this topic to last. This can be a very helpful process but also at the same time a very dangerous one... As I mentioned earlier, before taking this task on make sure you are following the materials recommendations. Just because the material says good for 1200+ sanding doesn't mean you always

want to start with 1200. I like to start with 2000 or even higher, repeating the process with 2500 and 3000 perhaps even 5000. If following this process your compounding will be a lot less work to do and you will reach the final shine much faster. Using water is always best with the sandpaper. Use a spray bottle and avoid using a bucket as this method can easily transfer unwater material to the surface. Keep in mind, you really need to have the paint on the surface to support this process since you are removing paint in micro layers much faster than compounding alone does.

Hopefully, this information is helpful to you all. Again, as mentioned earlier please feel free to reach out to me if you have questions. Its possible I can help to answer them. Tbrad041462@aol.com

Below are some pictures of the materials and equipment used.

3M ABC

3M 123 is also good but x2 pricing!



PACE – heavy cut, medium cut and polish



Random orbital buffer/polisher



Rotary buffer/polisher



3M White is compound and yellow is for finish



Hexlogic by chemical Guys. I like really their pads. You can get them in various sizes. Also, they have a wide range of cutting and polishing selections.

All the above products can be purchased through Amazon or at your local paint and body supply store.