

# DETAILED IMAGE

AUTO DETAILING GUIDE

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# WASHING AND DRYING



## Overview

Washing and drying is the foundation of any detail, whether it's simply maintaining your vehicle with a wash and dry or the start of a long detailing process. It's often overlooked that properly washing and drying your vehicle is the single most important step in any detailing process. This is due to the fact that most imperfections (swirls, scratches, water spots, etc.) are added to your paint during the washing and drying phase. With the proper tools, products and technique, you can easily minimize adding imperfections to your paint. There are various methods you can use to properly wash, which will be explained below in detail.

## Frequency

We recommend washing once every week or two.

## Pre-Wash Setup

There's a few things you want to do to get setup prior to any wash using a hose as your source of water. Properly preparing everything before you start your wash process will help things go smoother, which can help cut down on the time it takes to wash your vehicle. Being able to properly wash quickly will cut down on the chances of water spots forming on your vehicle, which can require a lot of time and effort to remove. To further eliminate any possibility of adding water spots to your paint, you can invest in a water purifier system, which removes any minerals from your water making it nearly impossible for water spots to form.

## Recommended Setup Procedure Prior to Washing

- Step 1: Attach your hose to your water source
- Optional Step: Set up your [in-line water purifier](#) for a mineral free wash
- Step 2: Unwind the [hose](#) and walk it around your vehicle and ensure you can easily spray and rinse every panel
- Step 3: Attach the [shut-off valve](#) to the end of your hose (make sure the valve is closed)
- Step 4: Turn on your water source
- Step 5: Attach your spray nozzle to the shut-off valve coupler
- Step 6: Place the [Grit Guard insert](#) into your designated rinse bucket

- Step 7: Turn your shut-off valve to open
- Step 8: Fill each bucket up about half way up with water
- Step 9: Soak your [wash media](#) in the clean rinse bucket until you are ready to wash

## Pre-Wash Degreasing

When heavy contamination has built up over time, you may want to utilize a stronger cleaner than just your [shampoo](#), such as a [degreaser](#), to help break up and loosen dirt, tar, sap, bird droppings, and other stubborn forms of contamination. It's usually best to degrease prior to shampooing your vehicle, so that as you shampoo your vehicle, it ensures there is no degreaser remaining on your vehicle. It's important to note that most degreasers will usually remove protective layers of sealant or wax, so use as needed. It's important that you know you'll need to reapply your coat(s) of protection.

## Pre-Wash Degreasing How-To

Note: Always read the directions of your product first and follow their recommendations when outlined. Also, check to make sure the product you are using is safe to use on the surface you plan on degreasing.

- Step 1: Choose your desired strength of the degreaser, many products can be diluted, while maintaining effectiveness
- Step 2: Starting with the lower portion of your vehicle working upwards, mist the degreaser onto your vehicle
- Step 3: Let the product dwell on your vehicle (usually 30 seconds - 5 minutes) as it works to break up and loosen the contamination from your vehicle
- Step 4: Choose a [wash media](#) to use and soak it in the clean water for a few seconds
- Step 5: Working in small areas, wipe the area you are degreasing with the wash media, using as little pressure as possible
- Step 6: Rinse the wash media in a separate rinse bucket, running your mitt or sponge over the [Grit Guard insert](#) to release as much contamination as possible
- Step 7: Repeat steps 2 through 6 until each area on your vehicle you degreased has been agitated with the wash media and water
- Step 8: When finished degreasing, clean out your two buckets and fill them up with fresh water
- Step 9: Proceed to wash and dry your vehicle

## Traditional Two Bucket Wash

Using the two bucket wash method is one of the safest ways to maintain your vehicle while minimizing the possibility of adding imperfections to the paint. It's very beneficial to master this technique as it can be used in conjunction with various other washing methods, such as [washing with a foam gun](#) and [using a rinseless shampoo](#).

- Step 1: Follow the [Pre-wash Setup Procedure](#)
- Step 2: Pour roughly an ounce (or as directed on the bottle) of [shampoo](#) into your non-rinse bucket
- Step 3: Spray the bucket with shampoo to generate some lather and suds
- Step 4: Take your wash mitt or sponge from the rinse bucket, and dunk it into the bucket full of suds
- Step 5: Starting from the top of your vehicle, gently glide your wash mitt / sponge across a section of your vehicle, using little to no added pressure
- Step 6: Clean your wash media in your rinse bucket, running your mitt or sponge over the [Grit Guard insert](#) to release as much contamination as possible
- Step 7: Repeat steps 4 through 6 until your entire vehicle has been washed
- Step 8: Thoroughly rinse off the suds from your vehicle
- Step 9: Turn the [shut-off valve](#) to the off position and remove your spray nozzle
- Step 10: Turn the shut-off valve back on and use the free flowing water to perform the [sheeting method](#)
- Step 11: Proceed to [drying your vehicle](#)

## Incorporating a Foam Gun

Using a [Gilmour Foamaster II Foam Gun](#) in conjunction with your [two bucket wash method](#) can further minimize adding imperfections to your paint, as well as add some fun to your wash process. The main benefit is that you can pre-soak your vehicle with shampoo without the need to touch your paint. This allows the surfactants in the shampoo to start lifting contamination from the surface of your vehicle, which can also speed up the wash process.

## How-To Wash using a Gilmour Foamaster II Foam Gun

- Step 1: Follow the [Pre-wash Setup Procedure](#), making sure you use the Gilmour nozzle that comes with the Foamaster II
- Step 2: Pour roughly an ounce (or as directed on the bottle) of shampoo into your non-rinse bucket
- Step 3: Spray the bucket with shampoo to generate some lather and suds
- Step 4: Pour the appropriate amount of shampoo into the foam gun reservoir and add water if desired (we like 4 - 6 ounces of shampoo with 4 - 6 ounces of water)
- Step 5: Adjust the dial to the appropriate dilution setting (we like Setting E for maximum suds)
- Step 6: Shake the foam gun tank to mix the shampoo and water, which helps generate more suds
- Step 7: Attach the foam gun tank to the foam gun nozzle
- Step 8: Starting from the top of your vehicle, cover your entire vehicle in suds with the foam gun
- Step 9: Take your wash mitt or sponge from the rinse bucket, and dunk it into the bucket full of suds

- Step 10: Starting from the top of your vehicle, gently glide your wash mitt / sponge across a section of your vehicle, using little to no added pressure
- Step 11: Clean your wash media in your rinse bucket, running your mitt or sponge over the [Grit Guard insert](#) to release as much contamination as possible
- Step 12: Repeat steps 7 through 9 until your entire vehicle has been washed
- Step 13: Remove the foam gun and thoroughly rinse off the suds from your vehicle
- Step 14: Turn the [shut-off valve](#) to the off position and remove your spray nozzle
- Step 15: Turn the shut-off valve back on and use the free flowing water to perform the [sheeting method](#)
- Step 16: Proceed to [drying your vehicle](#)

Note: There is no one right dilution ratio for a foam gun and any shampoo combination. We recommend you experiment with different ratios to see what you like best. If you provide a richer concentration expect more suds and a slicker surface while washing, but if you want a great value try diluting it more.

## Sheeting Technique

The sheeting method is a simple process that allows you to dry most of your vehicle without ever needing to touch the paint with a [drying towel](#). The main idea behind the sheeting method is to create a cascading effect where the water flowing onto the car combines with the water already on the surface, pulling it down off of the vehicle. Simple physics states that like particles stick together, which is why this method is so successful. When done properly, especially on a vehicle with a sealant or wax on it, you are left with only a few drops of water on each panel, which can easily be absorbed with your drying towel.

### How-To Perform the Sheeting Technique

Note: This should be performed after you vehicle has been properly washed following the recommended steps. Also, make sure your hose is dispensing free flowing water prior to starting.

- Step 1: Starting from the top of your vehicle moving left to right, flood the roof until water is pouring off the edge
- Step 2: Quickly lower the hose a little to "catch" the water falling from the roof, this time moving right to left
- Step 3: Lower the hose again and continue in the opposite direction moving left to right
- Step 4: Continue this technique until you reach the lowest panels of your vehicle
- Step 5: Finish drying your vehicle

## Drying Your Vehicle

One of the most common mistakes people make when detailing is improperly drying their vehicle. This is often a major cause of adding imperfections to your paint. Before putting a towel to your paint, if you have access to a [blower](#), we recommend blowing out panel gaps, trim pieces, lug nuts, between mirrors and glass, and lights. This helps prevent the continuous drip from these common areas which can be a pain when you are performing other detailing steps. For a drying towel, we highly recommend using a [microfiber waffle weave drying towel](#) for removing any water left behind (after performing the sheeting method of course). Waffle weave towels are textured so that it can help pull remaining contamination away from the surface rather than dragging it across the paint like a chamois (such as The Absorber or Shamwow). It's also much softer than a cotton bath towel, and can hold more than 5x it's weight in water.

## How-To Properly Dry Your Vehicle

- Step 1: If you haven't already, be sure to perform the [sheeting technique](#) to remove a majority of the water
- Step 2: If you have access to a [blower](#), blow out panel gaps, trim pieces, lug nuts, between mirrors and glass, and lights to stop any dripping
- Step 3: Starting from the top of your vehicle working down, blot dry (avoid dragging as much as possible) any remaining drops of water with your [waffle weave drying towel](#).

Note: If you are performing a maintenance wash and don't plan on doing any steps afterwards, we recommend going over your paint with a [quick detailer](#) and a [plush microfiber towel](#) to remove any tiny droplets of water and to enhance your paint's finish. If you are moving on to [claying](#) or [Polish](#), a few tiny drops remaining on your vehicle are OK, as the next steps will remove them.

## Rinseless Wash - Optimum No Rinse

The latest in wash technology allows you to wash your car without the need of a hose for rinsing afterward. You still need water of course, but simply one or two buckets full will do. This allows you to wash your car in your garage, in an apartment complex or condo, or virtually anywhere you can fill up a couple gallons of water. Watch as [Optimum No Rinse](#) or [Chemical Guys Hose Free Eco Wash](#) encapsulates dirt and other contamination and lifts it from the surface for safe removal. Keep your car clean and save the environment at the same time with this paint safe, eco-friendly style of washing.

## Rinseless Wash How-To

- Step 1: Insert your [Grit Guard insert](#) to the bottom of your bucket
- Step 2: Fill your bucket with 3 to 4 gallons of warm water
- Step 3: Pour in 1 oz. of [Optimum No Rinse](#) per 2 gallons of water in your bucket
- Step 4: Soak your [wash media](#) in the water and ONR solution
- Step 5: Wash the surface using little to no added pressure and allow the ONR to lift contamination off of the surface

- Step 6: Rinse your wash medium and glide it across the Grit Guard insert to help release as much contamination as possible
- Step 7: Repeat steps 4 - 6 until your entire vehicle has been washed
- Step 8: Blot dry using [waffle weave drying towels](#)
- Step 9: Follow up with your choice of [quick detailer](#) and a [plush microfiber towel](#) to ensure no streaking or water is left behind

Note: On heavily contaminated vehicles, we recommend pretreating the panel you are working on with a mixture of ONR in a [spray bottle](#), prior to washing. This will help lift the contamination prior to touching your vehicle, helping minimize adding any imperfections to the paint.

## Waterless Wash

This is the perfect step to use a day or two after a wash when there is simply a layer of light dust on your paint. Waterless wash options are simple, quick and effective. These products are like quick detailers, loaded with cleaners and surfactants to help remove light contamination without marring your finish. Our two most popular products are [Poorboy's Spray & Wipe](#) and [Chemical Guys Go Green! Waterless Wash](#). They are best used with [plush microfiber towels](#). Please know that this does not replace traditional washes. On heavily contaminated vehicles, you will add marring and swirls to the finish, waterless washes are designed to remove a layer of light dust safely.

### Waterless Wash How-To

- Step 1: Mist the waterless wash product onto the surface you are trying to clean
- Step 2: Let product dwell for 30 seconds to a couple of minutes
- Step 3: Using a plush microfiber towel, gently wipe the surface clean
- Step 4: Using a second plush microfiber towel, buff away any streaks
- Step 5: Repeat steps 1 - 4 until the entire vehicle has been cleaned

Note: For added lubricity, you can mist the microfiber towel prior to wiping the dusty surface.

## Facts and Tips

- Use as little pressure as possible with your wash medium
- Allow the [shampoo](#) to do most of the cleaning, not your force
- Using a [foam gun](#) to pre-soak your vehicle can help minimize adding imperfections
- It's always best practice to wash and dry in the shade, out of direct sunlight
- Always use two wash buckets, one with shampoo and water, and one with rinse water
- Using a [Grit Guard insert](#) helps release contamination from your wash mitt
- Use a separate [wash media](#) for your wheels and tires, heavy contaminated areas, and lightly contaminated areas
- Pre-treat heavily contaminated areas of your vehicle with a [degreaser](#)
- Rinse your wash media as frequently as possible (every panel or so)

- The more contaminated your vehicle is, the more often you should rinse your mitt or sponge
- It's good practice to wash weekly or every two weeks
- Using a [shut off valve](#) allows you to quickly remove a hose nozzle without getting wet or running to the water source
- You can use a second [Grit Guard insert](#) in each bucket with shampoo and water
- Some shampoos can be used to strip off previous coats of protection when used in high concentration
- Using a [Grit Guard insert](#) helps trap contamination on the bottom of the bucket
- Utilize the [sheeting method](#) to remove most of the water from your vehicle
- A [waffle weave drying towel](#) is the safest product to use to dry your vehicle
- Instead of wiping with your drying towel, blot the paint to minimize adding imperfections
- Using a [blower](#) can help remove water between panels, mirrors, gaps, lug nuts and other hard to reach areas
- [Optimum No Rinse](#) is an excellent wash option for people without access to a hose

## What's Next?

After you've properly washed your vehicle, the next step in the entire detailing process is to clay your paint to remove embedded contamination that was not removed during the wash. If this was simply a maintenance wash, consider adding a coat of [sealant](#) or [wax](#), or even use a [quick detailer](#) to enhance the gloss and depth.

# CLAY BAR



## Overview

Using a [clay bar](#) will remove embedded surface contamination that still remains after a maintenance [wash](#). Sometimes the contamination removed is not always visible on the paint to the naked eye. After using a clay bar on your paint you will be left with a surface that is as smooth as glass and properly prepped. It is now ready for polish or for you to apply layers of protection. Not only can you clay your vehicles paint, but glass, wheels, lights and more. A common misconception about using a clay bar is that it has an impact on removing swirls and scratches, it does not.

## Frequency

We recommend using a clay bar roughly twice a year, or before details where you plan on polishing the paint. If your car is subject to industrial fallout or heavily contaminated areas, using a clay bar more often may be required.

## Prior to Use

Before using a clay bar, your car should be [washed and dried](#) to remove a majority of contamination on your vehicle. The more contaminated the paint is the more likely imperfections can be added during the clay bar process.

## Choosing a Clay Lubricant

There are two common types of clay lube, quick detailers and a combination of water and shampoo solution. The clay bar lubricant provides a slick surface for you to glide your clay over. If you use the clay on paint without clay lube, you'll notice that the clay won't slide across your paint and you can easily add marring and leave behind pieces of clay on your paint which can be a pain to remove.

Many detailers use a quick detailer as their clay lube. We recommend using one that has some cleaning power and little or no protective properties. This helps loosen the embedded contamination from the paint and yields great results. [Poorboy's Spray & Wipe](#) is a good clay lube because it's a great cleaner and creates a slick surface to work on.

Another popular option is to use a mixture of [Optimum No Rinse](#) and water. It has cleaning agents that help lift contamination from the surface, provides a slippery surface to glide your clay over and cleans up nicely. Simply add 2 ounces of ONR to a gallon of water and you have yourself a great clay bar lubricant.

## How-To Clay

- Step 1: [Wash and dry](#) your vehicle
- Step 2: Break off a small piece of clay that you will be working with and shape it into a flat surface
- Step 3: Working in small 18" x 18" sections, mist the clay bar lubricant over your working area, so that every square inch is covered in clay lube
- Step 4: Gently glide the clay bar over your working area using overlapping passes going left to right or up and down. Note: You do not want to rely on a lot of downward force to clean the paint. You should allow the clay to absorb the contamination. Stubborn contamination can require a good amount of time, clay lube and passes to remove.
- Step 5: Continue working on an area until all contamination is removed. You can tell this has happened because the clay will slide effortlessly across the paint and you will not hear any contamination being picked up by the clay.
- Step 6: Wipe off the excess clay lube with a [microfiber towel](#)
- Step 7: Continue steps 3 - 6 until the entire car has been properly clayed

Note: Reshape your piece of clay after each section so that there is a clean fresh surface exposed. If you cannot reveal a fresh surface, break off a new piece of clay. To increase the life of your clay bar, spray the bar with a clay lube and store it in a [clay bar storage container](#).

## Facts and Tips

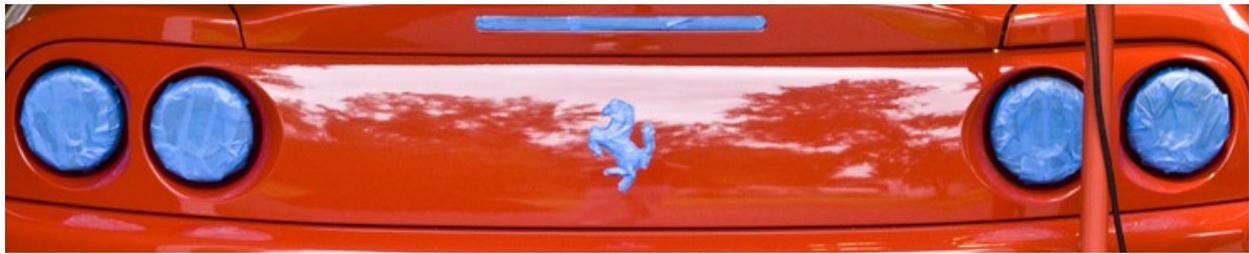
- If you drop a piece of clay, throw it away!
- Working on a small area ensures that your clay lube will not dry up too fast
- Do not use too much pressure when gliding a clay bar across the lubricated surface
- Using a quick detailer that leaves behind a slick surface is often good as a clay bar lubricant
- For most vehicles, we recommend using a [fine grade clay bar](#)
- A [medium grade clay bar](#) will almost always leave behind some marring that needs to be polished to remove
- [Optimum No Rinse](#) mixed with water is a common clay bar lubricant amongst professionals
- You can often tell if there is contamination still on the surface by listening closely as your clay
- Avoid using a clay bar in direct sunlight so that your clay lube does not dry up quickly
- Cutting your clay bar into small pieces helps preserve your clay in the event you drop a piece

- Always try to reshape your clay to expose a fresh, clean piece of clay
- When storing your clay bar, mist some of your clay lube in the bag or container to keep it soft and flexible
- It's good practice to re-wash your vehicle after using a clay bar to remove any loosened contamination and to remove excess clay bar residue
- Clay not only works well on your paint, but also your glass, wheels, plastics and other surfaces

## **What's Next?**

After your paint has been clayed it is good practice to give the car a re-wash before proceeding to the next step, which is polishing your paint. Re-washing your vehicle can ensure that any loosened contamination is removed and that all of the clay bar lubricant is removed. The wash should go much quicker since there should be nearly no contamination on the vehicle and you should be able to sheet dry very effectively since your paint will be ultra smooth. After the re-wash, then you want to polish your paint.

# POLISH



## Overview

Polishing is the step in the detailing process that yields the most dramatic difference in your paint's appearance. The objective of polishing is to remove imperfections in the clear coat that cause the paint to look dull. Surface imperfections can include swirls, scratches, water spots, etchings, industrial fallout, oxidation, etc. These surface imperfections cause light to fragment instead of passing directly through the clear coat yielding less gloss and depth. When these imperfections are removed, you will reveal the true potential of your vehicle's paint.

A swirl mark is a very thin and shallow scratch on the surface of your paint, that often comes from washing and drying improperly. Waxes, sealants and most glazes will not permanently remove these surface imperfections at best they will hide them temporarily. To eliminate these imperfections safely and permanently you want to polish the surface starting with a less aggressive polish and using more aggressive polishes as needed. The chemical polishing agents and/or the polishing particles will safely remove the extremely fine imperfections.

## Frequency

We recommend only polishing as needed, which is typically around one to two times per year during a full detail. After a thorough multiple step polishing process has been completed you can maintain the finish properly using the correct washing and drying products and techniques. Keeping the paint in good condition will ensure it needs less frequent polishing.

## Why Use a Buffer?

While you can polish by hand, it is highly recommended to use a quality buffer for maximum results. When you remove imperfections in your paint, you are working in polishing particles thoroughly and evenly. To do this by hand, you need to use a fair amount of pressure while moving the pad rather quickly. To put it in perspective, the standard in the industry for buffers is the [Porter Cable 7424 XP](#). This buffer can generate 6,800 oscillations per minute at full speed very safely and effectively. Imagine trying to move your arm 6,800 times per minute for hours on end, all while exerting 10 - 15 lbs of pressure on the applicator pad. It's impossible to duplicate by hand and it can be tiresome to do a small fraction of this work by hand.

Another main advantage of a buffer is its ability to work with various pads that help increase the polishing power. For example a blue pad is extremely soft so it's used for extremely fine polishes, but if you use an orange pad it's more dense and can work in a medium cutting polish extremely well. Best of all these pads all use the same hook and loop backing so you simply slap them on and pull them off with ease and no tools are needed. Below we will outline some of the most popular buffers for detailers and what pads and polishes they work great with. There is no one best buffer and there is no one best combination of pad and polishes, however our recommendations come from years of experience and consistently yield excellent results.

To see a comparison of the technical specifications between buffers please check out our [Buffer Comparison Chart](#).

## Porter Cable 7424 XP

The Porter Cable 7424 XP (PC 7424 XP) is often referred to as the standard in the auto detailing industry. We've yet to come across a buffer at a lower price point that has enough power to effectively work in polishes like the Porter Cable 7424 XP can. This is one of the main reasons why the PC 7424XP is our best selling buffer.

The PC 7424XP is great for both experienced professionals and first time users. The first benefit many detailers notice is the lower price point which makes it affordable to just about all. It is also incredibly easy and safe to use so brand new users can expect excellent results with their first detail. The PC 7424 XP is a random orbital buffer, which means it oscillates rather than spins. This helps reduce the amount of heat generated on the paint and is very safe to use. Even at full speed, the risk of damaging your paint is virtually zero.

### Pros:

- Low cost compared to other quality buffers on the market
- Very safe to use at any speed
- Easy to control and maneuver
- Can be used with almost any [hook and loop pad](#)

### Cons:

- Can not remove some scratches and deeper imperfections
- [Backing plate](#) not included

## Flex XC3401VRG

The Flex XC3401VRG dual action buffer uses a revolutionary design that really changed detailing when it was first released. The XC3401VRG has the ability to correct imperfections nearly as fast a rotary buffer, but is totally safe to use and you won't burn the paint with it. The Flex is a true dual action buffer, meaning it oscillates as well as utilizes forced rotation. This creates even more power while keeping it safe and easy to use. It has plenty of polishing power to remove many surface imperfections quickly and effectively. The ergonomics of the buffer and unique features make it easy to operate, even for first time buffer users.

Pros:

- Fast correction of swirls, scratches, water spots, oxidation and more
- Powerful motor that will not bog down under pressure
- Up to 9,600 OPM and 480 RPM at full speed
- Variable speed trigger allows you to reduce the speed on the fly
- Professional like results nearly every time you polish
- Can be used to apply a compound, polish, glaze, sealant or wax

Cons:

- Up front cost of the buffer

## Makita 9227C

The [Makita 9227C](#) is a rotary buffer that is perfect for the high end detailing enthusiasts or professional detailer. Rotary buffers can correct paint imperfections faster than a [random orbital](#) or a [dual action buffer](#), however, they take lot of practice to master and have a higher risk of damaging the paint when used incorrectly.

The 9227C uses the standard 5/8" - 11 UNC spindle thread that most rotary buffers utilize, so finding a [backing plate](#) is not a chore.

Pros:

- Standard in the industry for professional paint correction
- Fast correction of swirls, scratches, water spots, oxidation and more
- Slow starting RPM speed of 600

Cons:

- Not recommended for beginner detailers due to the risk of damaging the paint
- No variable speed trigger
- Does not include a [backing plate](#)

## Choosing a Backing Plate

Every buffer requires some form of a backing plate that allows you to attach pads to the buffer. Each buffer may have a different requirement for what type of backing plate is needed so make sure you get the correct one. The backing plate may come pre-assembled but many will screw in or otherwise attach to the buffer. It will stay there no matter what type of pad you use as long as it's the same size. The face of the backing plate is hook and loop (similar to Velcro) which very easily attaches to the back of the hook and loop pads. You simply just center the pad on the backing plate and press it down securely and you are done.

If you are not sure what size backing plate to get please see the [Smaller vs Larger section](#). Below is a list of backing plates that work with each buffer and the corresponding pad size:

Porter Cable 7424 XP and Meguiar's Dual Action Polisher G110v2\* (\*comes with a 6" Backing Plate)

- [Lake Country Porter Cable 7424 Backing Plate](#) used with 4" pads
- [Lake Country 5 Inch Backing Plate for Porter Cable 7424](#) used with 5.5" pads
- [Lake Country 6 Inch Backing Plate for Porter Cable 7424](#) used with 6.5" pads
- [Meguiar's Backing Plate 3 Inch with Adapter Kit](#) used with 3" pads and 4" pads
- [Meguiar's Professional DA Polisher Backing Plate W67DA](#) used with 5.5" pads
- [Meguiar's DA Professional Backing Plate](#) used with 6.5" pads

Makita 9227C-X3 Rotary Buffer and Flex PE 14-2 150 Rotary Buffer

- [Lake Country Rotary Backing Plate](#) used with 4" pads
- [Lake Country Rotary Hook & Loop 5" Backing Plate](#) used with 5.5" pads
- [Lake Country Rotary Hook & Loop 6" Backing Plate](#) used with 6.5" pads
- [Chemical Guys Evolve 4R Rotary Backing Plate](#) used with 5.5" pads
- [Meguiar's Solo Easy-Buff Rotary Backing Plate W66](#) used with 6.5" pads

Flex XC 3401 VRG

- [Lake Country Flex XC 3401 Backing Plate System](#) used with 4" and 6.5" pads
- [Flex XC 3401 4 3/8 Backing Plate](#) used with 5.5" pads
- [Flex XC 3401 5 1/2 Backing Plate](#) used with 6.5" pads

## Hand Polishing

As previously stated a buffer is generally more effective at applying a polish or compound because it can provide more passes and pressure than a normal hand application. The added pressure and passes will work the polish in more thoroughly and effectively removing more of the surface imperfections. However, if you are not able to use a buffer you can still apply polishes by hand and make your vehicle look noticeably better. Hand applications are generally completed with one of two methods. The traditional method is a generic hand applicator usually made of foam or microfiber. Another option is to use a product like the [Polishing Pal](#) and [Lake Country](#) four inch pads to work in the polishes.

The Polishing Pal is a huge help for those who prefer a hand application because of two main advantages over a traditional hand application. The Polishing Pal makes it is easier to distribute the pressure through the entire four inch pad instead of just where your finger tips press. Secondly you can use any of the four inch pads from Lake Country which are a huge help with the polishing process. For example you will get more polishing power with an orange four inch pad and the Polishing Pal versus the same application with a traditional foam applicator. The Polishing Pal can be used with various pads so you use it to apply any compound, polish, glaze, sealant and wax. Many detailers believe the Polishing Pal feels more comfortable to work with and less tiresome.

## Choosing Polishes

With so many [polish options](#) available, it can be difficult to choose which product will work best for your needs. Each polish has their pros and cons, while a few excel in almost everything. Polishes can vary from a non-abrasive chemical cleaner to a very abrasive compound. The overall objective of polishing is to rid the surface of imperfections. In an ideal world, you would always use the least aggressive polish and pad combination to get the results you are looking for. The problem with going this route is it can be very time consuming to test lots of polish and pad combinations and it can be costly to stock up on multiple polish and pad combinations. As you become more experienced, you will be able to assess your paint and have a good idea what level polish you will need.

As a detailing enthusiast, it is recommended to have at least one polish of each level on hand to tackle any type of imperfection that may come your way. Listed below are the various types of polishes and what each polish is typically used for.

### Compounds

[Compounds](#) are the most aggressive type of polish and should be used only as needed. Compounds are commonly used on severely neglected vehicles and to clean up wet sanding marks. Compounds will almost always leave behind some marring, hazing, or holograms and should always be followed up with a finer polish and pad combination.

### Cutting Polishes

Most polishes that correct moderate paint imperfections fall into the category of a [cutting polish](#). They are less aggressive than compounds in terms of cutting power and usually do not finish down as well as a finishing polish. On most paint, it is recommended to follow up a cutting polish with a finishing polish to remove any micro-marring, hazing or holograms as well as increase the depth and gloss. Some cutting polishes are capable of finishing down very nicely on certain paint finishes, but to be safe we recommend a light pad and polish be used afterward.

### Finishing Polishes

The point of most [finishing polishes](#) is to remove very minor imperfections in the paint, such as micro-marring, hazing and holograms. Finishing polishes typically will not remove imperfections deeper than a very light swirl. They are also used to burnish the paint to achieve an exceptional level of gloss and depth.

### Paint Cleaners

[Paint cleaners](#) are designed to enhance the depth and gloss while properly prepping the paint for a sealant or wax. Sometimes paint cleaners can have micro abrasives or they can be non-abrasive. They typically will not remove imperfections that require leveling the clear coat, but can remove some oxidation and mineral deposits.

## Choosing Pads

When it comes to selecting the proper pad for polishing, you want to always make sure you match the aggressiveness of the polish with the aggressiveness of the pad. A mismatched combination can create unnecessary work while wasting your time and product, so take the time to ensure you have the right pad and polish for the job.

### Most Aggressive to Least Aggressive

Our current pad offering in order from most aggressive to least aggressive looks like this:

- [Purple Foamed Wool](#)
- [Yellow Cutting Pad](#)
- [Orange Light Cutting Pad](#)
- [Green Very Light Cutting Pad](#)
- [White Polishing Pad](#)
- [Black Finishing Pad](#)
- [Blue Finishing Pad](#)

[Purple foamed wool pads](#) are one of the more aggressive pad we offer. These are typically used on [rotary buffers](#), but can also be used on a [dual action buffer](#) or [random orbital](#). What makes them so effective on a rotary buffer is that it offers lots of cutting power with less risk of damaging the clear coat. Because of the air between the wool fibers, the paint remains cooler at high speeds, compared to a foam pad with similar cutting ability. We always recommend following up with finer polish and pad combinations to achieve maximum results when using a purple foamed wool pad.

[Yellow cutting pads](#) utilize a very dense foam pad, making them very aggressive in terms of cutting ability. The yellow cutting pads are commonly used for heavy correction using a [compound](#) on neglected vehicles. Yellow cutting pads are often used instead of a purple foamed wool pads when looking for maximum cut on a [random orbital](#) or [dual action buffer](#). We always recommend following up with finer polish and pad combinations to achieve maximum results when using yellow cutting pads.

[Orange light cutting pads](#) are one of the work horse pads for many professional detailers. They are most commonly used to apply [medium cutting polishes](#) and do a very good job removing swirls, scratches and other imperfections in the paint. We always recommend following up with a finer pad, such as a [white polishing pad](#) or [black finishing pad](#) whenever using an orange pad. The cyan pad is used in the same manner as the orange pad.

[Green very light cutting pads](#) are becoming more and more popular, especially with the advancements in polishes. They are typically used to apply [medium cutting polishes](#) or [finishing polishes](#), when imperfections are not too deep. Green pads are unique in the sense that you can get good correction out of them, but you also have the potential to finish down nicely. If you

decide you want even more depth and gloss, we recommend following up the green pad with a [black finishing pad](#).

The [white polishing pad](#) is one of our most versatile polishing pads. It is commonly used to apply [medium cutting polishes](#), finishing polishes, and chemical polishes. White pads have the ability to finish down nicely without the need of a finer pad, however, you may opt for a finer pad to get the maximum depth and gloss. The tangerine pad is used in the same manner as the white pads.

[Black finishing pads](#) are commonly used to get increased depth and gloss with a [finishing polish](#). They are also used to apply [all in one products](#), [paintwork cleansers](#), [glazes](#), [sealants](#), and [liquid waxes](#). A very versatile pad that should be in any detailers arsenal.

[Blue fine finishing](#) pads are our softest and most porous pad. They are commonly used to apply last step products as they have virtually no bite to them. Blue pads are sometimes used to burnish the paint with the finest polish, [Menzerna PO85RD](#), to bring out the maximum depth and gloss. These pads are also commonly used to apply a sealant or liquid wax. The crimson pad is used in the same manner as the blue pad listed here.

## Smaller vs Larger

Different pad sizes can have an impact on how well the buffer works in a polish, control, maneuverability, and how fast you can cover an area.

Smaller pads in general will offer you more control with any buffer. Smaller pads also make it easier to maneuver buffers in tighter areas, around corners and closer to trim pieces. On the downside a smaller pad will fill up with product faster than a larger pad. For maximum results, especially when polishing, it's best to swap the pads out for fresh ones more frequently, especially with the smaller pads. We recommend changing the pad out for a fresh one every couple panels, so you may use 4 - 6 pads per coat. In general, the fresher the pad, the better the results.

Larger pads can cover a larger surface area in less time. This is particularly helpful with a sealant or wax which only needs to be spread nice and thin. We recommend using 2 - 4 pads per coat so you get maximum results while polishing. The downside to this larger surface area is that it's slightly less effective when trying to thoroughly work in a polish.

With random orbital buffers, such as the Porter Cable 7424 XP, the smaller the pad, the more effective you'll be able to work in polishes. This is due to the fact that you are concentrating more of the buffers energy over a smaller area. Larger pads on a random orbital do not break down polishes as effectively as smaller pads because the energy is distributed over a larger area.

With a rotary buffer, the opposite holds true. Smaller pads offer less polishing power versus a larger pad. On a rotary buffer, the outer edge of the pad is spinning the fastest. The larger the

pad is, the more cut you are going to get out of a rotary buffer. This can correct imperfections faster than smaller pads, however the risk of leaving behind hazing or holograms is much higher with larger pads on a rotary buffer.

There is no one right size pad, it just depends on your specific goals and the buffer you choose. In general if we have to pick one size we recommend the 5.5" pads as they are a nice happy medium. The 5.5" pads provide enough corrective power while covering plenty of surface area to complete the detail in a timely manner.

## Popular Polish & Pad Combinations

As you polish you will learn what works best for you and your particular vehicle(s) but that takes some time and experience. After years of experience and feedback from other expert detailers we've compiled various recommendations below that work great together to help get you started.

Popular 2 Step Combinations:

- Step 1: [Menzerna SI 1500](#) on [orange pads](#)
- Step 2: [Menzerna PO106FA](#) on [white pads](#)
  
- Step 1: [Menzerna SI 1500](#) on [green pads](#)
- Step 2: [Menzerna PO85RD](#) on [black pads](#)
  
- Step 1: [Optimum Spray Compound](#) on [orange pads](#)
- Step 2: [Optimum Spray Polish](#) on [white pads](#)
  
- Step 1: [Poorboy's World SSR 2.5](#) on [orange pads](#)
- Step 2: [Poorboy's World SSR 1](#) on [white pads](#)

Popular 3 Step Combinations:

- Step 1: [Menzerna Super Intensive Polish](#) on [orange pads](#)
- Step 2: [Menzerna PO106FA](#) on [white pads](#)
- Step 3: [Menzerna PO85RD](#) on [black pads](#)
  
- Step 1: [Menzerna Power Gloss](#) on [yellow pads](#) or [purple foamed wool pads](#)
- Step 2: [Menzerna Super Intensive Polish](#) on [orange pads](#)
- Step 3: [Menzerna PO106FA](#) on [white pads](#)
  
- Step 1: [Meguiar's M105 Compound](#) on [orange pads](#)
- Step 2: [Meguiar's M205 Polish](#) on [white pads](#)
- Step 3: [Menzerna PO85RD](#) on [black pads](#)

- Step 1: [Poorboy's World SSR 3](#) on [yellow pads](#) or [purple foamed wool pads](#)
- Step 2: [Poorboy's World SSR 2.5](#) on [orange pads](#)
- Step 3: [Poorboy's World SSR 1](#) on [white pads](#)

## How-To Polish

Properly polishing your paint to remove imperfections can take lots of practice to master, but if you follow these steps as closely as possible, you'll get the best results in the shortest amount of time. Before you polish your vehicle, the paint should already be [washed](#) and [clayed](#) for maximum results.

## Proper Lighting

In order to know if you are getting the results you are looking for when polishing, it is extremely important to invest in quality lighting. One of the most cost effective light sources you can purchase is a [handheld light gun by Brinkmann](#). Using the proper lighting will reveal imperfections in your paint and give you a clear understanding if the polishing combination you selected is going to give you the results you'll be looking for. Read this in depth article on the [differences between the two Brinkmann lights](#) for more information.

## Caring for Pads

As you polish and your pads become saturated with product, you are going to want to swap them out for fresh pads after every couple of panels. To maximize the life of your pads, it's highly advised to keep a 5 gallon bucket of water with some [Snappy Clean solution](#) mixed in. As you are done with a pad, simply put it in the bucket to begin soaking to release and dissolve the polish right away. This will help keep your pads in like new condition without much work. When you are done letting the pads soak in the solution, take them out and blast them with a stream of water from your hose or pressure washer. Allow them to completely dry and store them in a labeled Ziploc bag with the product you used with the pad. It is best practice to only use 1 product per pad.

## Taping

To help reduce the risk of damaging any part of your vehicle, it is best to tape off the areas you want to protect. By properly taping, it also allows you to get as close to trim pieces as possible without damaging them. There are many quality options on the market but we recommend the [Meguiar's Professional Masking Tape](#). This will release easily from your paint with little to no residue left behind and is easy to clean up. We recommend taping off any area you do not want to polish or get any product on. Common areas to tape are your trim pieces, around emblems, headlights, tail lights, around clear bras, and more. When in doubt, tape it up, it's better to prevent a problem than to create one. Check the image at the [top of this page](#) for a taped up Ferrari 360 Spyder.

## Porter Cable 7424 XP

- Step 1: Attach the appropriate backing plate to the [Porter Cable buffer](#)
- Step 2: Center your pad on the backing plate
- Step 3: Apply several pea sized drops of polish on the outer edge of the pad (apply a few extra drops to a fresh pad)
- Step 4: Visualize your working area, starting with a small 12" x 12" box on a horizontal surface
- Step 5: Trace your working area with the polish on your pad with the buffer off
- Step 6: Turn the buffer on a low speed setting (1 - 3) and spread the polish evenly through the entire 12" x 12" working area
- Step 7: Turn the speed dial of the buffer up to 5 or 6 and start in a corner of your 12" x 12" working area
- Step 8: Begin to apply roughly 15 - 20 lbs of pressure on the head of the buffer
- Step 9: Working from one corner to the next, move the buffer at a pace of 1" per second while exerting the 15 - 20 lbs of pressure
- Step 10: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 11: Continue this pattern until you have polished your entire 12" x 12" working area
- Step 12: Polish the area again, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 13: Polish the area the same as you did the first time, but this time use slightly less pressure
- Step 14: If the polish is broken down (usually looks like a clear milky haze), shut the buffer off
- Step 15: Using a clean [microfiber towel](#), remove the broken down polish from the paint
- Step 16: Assess your work with your light source to ensure you have achieved the results you were looking for
- Step 17: Repeat steps 3 through 16 until the entire vehicle has been polished

Note: After every couple of panels, replace your [pad](#) with a fresh one for maximum results. If you are working with a limited number of pads, clean out the pad after every few sections using a medium bristled toothbrush and the buffer on a low speed (do this away from the car as it can potentially dust quite a bit).

## **Flex XC 3401 VRG**

- Step 1: Center your pad on the backing plate of your [Flex XC 3401 VRG buffer](#)
- Step 2: Apply several pea sized drops of polish on the outer edge of the pad (apply a few extra drops to a fresh pad)
- Step 3: Visualize your working area, starting with a small 12" x 12" box on a horizontal surface
- Step 4: Trace your working area with the polish on your pad with the buffer off

- Step 5: Set the speed dial to your desired working speed (between 4 and 6 is recommended)
- Step 6: Using the variable speed trigger, spread the product around your 12" x 12" working area at a low speed
- Step 7: Starting in one corner of your working area, pull the trigger to full speed and lock in your speed
- Step 8: Begin to apply roughly 15 - 20 lbs of pressure on the head of the buffer
- Step 9: Working from one corner to the next, move the buffer at a pace of 1" - 2" per second while exerting the 15 - 20 lbs of pressure
- Step 10: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 11: Continue this pattern until you have polished your entire 12" x 12" working area
- Step 12: Polish the area again, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 13: Polish the area the same as you did the first time, but this time use slightly less pressure
- Step 14: If the polish is broken down (usually looks like a clear milky haze), shut the buffer off
- Step 15: Using a clean [microfiber towel](#), remove the broken down polish from the paint
- Step 16: Assess your work with your light source to ensure you have achieved the results you were looking for
- Step 17: Repeat steps 2 through 16 until the entire vehicle has been polished

Note: After every couple of panels, replace your [pad](#) with a fresh one for maximum results. If you are working with a limited number of pads, clean out the pad after every few sections using a medium bristled toothbrush and the buffer on a low speed (do this away from the car as it can potentially dust quite a bit).

## **Makita 9227C**

- Step 1: Attach the appropriate backing plate to the [Makita buffer](#)
- Step 2: Center your pad on the backing plate
- Step 3: Apply several pea sized drops of polish on the outer edge of the pad (apply a few extra drops to a fresh pad)
- Step 4: Visualize your working area, starting with a small 12" x 12" box on a horizontal surface
- Step 5: Trace your working area with the polish on your pad with the buffer off
- Step 6: Turn the buffer on the lowest speed setting and spread the polish evenly through the entire 12" x 12" working area
- Step 7: Turn the speed dial of the buffer up to a comfortable working speed (between 1000 - 1500 RPMs is common)

- Step 8: Very little pressure is needed when using a rotary buffer, try to use just a hair more than the weight of the buffer
- Step 9: Working from one corner to the next, move the buffer at a pace of 2" - 3" per second while making sure you always keep the buffer moving
- Step 10: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 11: Continue this pattern until you have polished your entire 12" x 12" working area
- Step 12: Polish the area again, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 13: Polish the area the same as you did the first time, but this time use even less pressure
- Step 14: If the polish is broken down (usually looks like a clear milky haze), shut the buffer off
- Step 15: Using a clean [microfiber towel](#), remove the broken down polish from the paint
- Step 16: Assess your work with your light source to ensure you have achieved the results you were looking for
- Step 17: Repeat steps 3 through 16 until the entire vehicle has been polished

Note: After every couple of panels, replace your [pad](#) with a fresh one for maximum results. If you are working with a limited number of pads, clean out the pad after every few sections using a medium bristled toothbrush and the buffer on a low speed (do this away from the car as it can potentially dust quite a bit).

## Hand Polishing

- Step 1: If you are using the Polishing Pal select the desired pad and center it on the Polishing Pal
- Step 2: Apply a few pea sized drops of polish to the face of a clean pad (when the pad is new you can apply a few extra drops)
- Step 3: Spread the product over a 18" x 18" area or less with extremely light pressure to distribute the product evenly
- Step 4: Work the polish in with medium to firm pressure in a circular motion
- Step 5: Overlap each pass by 50% working left to right and then up and down
- Step 6: Remove the excess product immediately or within a few minutes with a clean [microfiber towel](#)
- Step 7: Assess your work with your light source to ensure you have achieved the results you were looking for
- Step 8: Repeat steps 1 through 7 until the entire vehicle has been polished

Upon completion the paint should have less swirls, oxidation and other surface imperfections. With a more optically clear surface you will now get a deeper gloss and a better shine. Additionally your sealant or wax used afterward will bond to this cleaner and smoother surface better so you can expect increased durability from the protection.

## Facts and Tips:

- The smaller the section you work in, the better your results will be
- Do not rush the polishing process, it is very time consuming but the results are worth it
- When using a [random orbital](#) or [dual action buffer](#), apply roughly 15 - 20 lbs of pressure
- Always match the aggressiveness of the product with the aggressiveness of the pad
- Swap out your pad for a fresh one every couple of panels for maximum results
- Keep a bucket of water and [Snappy Clean solution](#) by your side to soak your pads as soon as you are done
- Using the proper lighting when polishing is important to assess your results accurately
- [Smaller pads](#) offer you more control and can get in tighter areas
- [Larger pads](#) can spread products quickly, which is great when applying a sealant
- [Rotary buffers](#) should be used by experienced detailers and professionals
- Tape off your trim, glass, and any other area you do not want polish to potentially damage
- Use 3 pea sized drops of polish per working area, many detailers use too much product

## What's Next?

After polishing your paint to your liking, the clear coat is more optically clear and you'll get a much deeper reflection. It should look more vibrant and feel smoother to the touch. After that, your next step could be to use a glaze, sealant or wax. These products will help enhance the appearance of the surface and the sealant and wax can protect it.

# GLAZE



## Overview

A glaze is often an optional step of the detailing process, but when used correctly can help add an additional layer of gloss and depth to the paint. Glazes are essentially polishes that leave behind oils, kaolin clay or some other substance that is designed to increase the depth and gloss while being able to mask or hide some minor imperfections in the paint. Glazes are great products to use right before a car show as it can help increase the depth and gloss, especially on lighter colored vehicles where this is often hard to accomplish. One of the downsides of using a glaze is that it may reduce a sealant or waxes ability to bond to the paint with it's maximum potential. The sealant and wax will still protect very well, it just may not last quite as long as it would if it was used on the bare paint.

Many people's expectations are often too high when it comes to a glaze filling in minor imperfections. If your car is filled with swirls and scratches, you are much better off investing in a [polish](#) to remove the marks, which is also a permanent fix, the results from a glaze are temporary. Your car should be washed, clayed, and polished prior to using a glaze for optimal results.

## Frequency

It's never absolutely necessary to apply a glaze so it can be done as little as you would like or as much as you would like. For best results we recommend applying a glaze during a full detail, therefore it would be after washing, clay and polishing and before your sealant and/or wax. At a minimum make sure the vehicle has been freshly washed, apply the glaze and lastly apply the sealant and/or wax of your choice.

## How-To Apply a Glaze

When using a buffer to apply a glaze, we recommend using a black finishing pad.

### Porter Cable 7424 XP

- Step 1: Center your black pad on the backing plate
- Step 2: Apply 3 pea sized drops of glaze in a triangular pattern towards the outer edge of the pad

- Step 3: Visualize your working area, something between 18" x 18" and 24" x 24"
- Step 4: Trace your working area with the glaze on your pad with the buffer off
- Step 5: Turn the buffer on a low speed setting (1 - 3) and spread the glaze evenly through the entire working area
- Step 6: Turn the speed dial of the buffer up to approximately 4 and start in a corner of your working area
- Step 7: Begin to apply a light amount of pressure (approximately 5 lbs) on the head of the buffer
- Step 8: Working from one corner to the next, move the buffer at controlled pace (approximately 3" - 5" per second)
- Step 9: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 10: Continue this pattern until you have applied the glaze to your entire working area
- Step 11: Repeat this process, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 12: Once the glaze is worked into the paint, shut the buffer off
- Step 13: Using a clean microfiber towel, remove the glaze from the paint
- Step 14: Repeat steps 2 through 13 until the entire vehicle has the glaze applied

## **Flex XC 3401 VRG**

- Step 1: Center your black pad on the backing plate
- Step 2: Apply 3 pea sized drops of glaze in a triangular pattern towards the outer edge of the pad
- Step 3: Visualize your working area, something between 18" x 18" and 24" x 24"
- Step 4: Trace your working area with the glaze on your pad with the buffer off
- Step 5: Set the buffer to your desired work speed (usually between 2 - 3 is recommended)
- Step 6: Using the variable speed trigger, spread the product around your working area at a low speed
- Step 7: Begin to apply a light amount of pressure (approximately 5 lbs) on the head of the buffer
- Step 8: Working from one corner to the next, move the buffer at controlled pace (approximately 5" per second)
- Step 9: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 10: Continue this pattern until you have applied the glaze to your entire working area
- Step 11: Repeat this process, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)

- Step 12: Once the glaze is worked into the paint, shut the buffer off
- Step 13: Using a clean microfiber towel, remove the glaze from the paint
- Step 14: Repeat steps 2 through 13 until the entire vehicle has the glaze applied

## **Makita 9227C**

- Step 1: Attach the appropriate backing plate to the Makita buffer
- Step 2: Center your black pad on the backing plate
- Step 3: Apply 3 pea sized drops of polish in a triangular pattern towards the outer edge of the pad
- Step 4: Visualize your working area, somewhere between 18" x 18" and 24" x 24"
- Step 5: Trace your working area with the polish on your pad with the buffer off
- Step 6: Turn the buffer on the lowest speed setting and spread the glaze evenly through the working area
- Step 7: Turn the speed dial of the buffer up to a comfortable working speed (between 700 - 900 RPMs is common)
- Step 8: Very little to no added pressure when applying the glaze
- Step 9: Working from one corner to the next, move the buffer at a pace of 5" - 6" per second while making sure you always keep the buffer moving
- Step 10: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 11: Continue this pattern until you have polished your entire working area
- Step 12: Polish the area again, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 13: Once the glaze is worked into the paint, shut the buffer off
- Step 14: Using a clean microfiber towel, remove the excess glaze from the paint
- Step 15: Repeat steps 3 through 14 until the entire vehicle has the glaze applied

## **Hand Application**

- Step 1: Dispense about 2 pea sized drops in the center of the foam hand applicator pad
- Step 2: Outline your 18" x 18" working area
- Step 3: Gently spread the glaze thinly and evenly in your working area
- Step 4: Using light pressure work the glaze into the paint using overlapping circular motions
- Step 5: Wait 2 - 5 minutes then use a clean microfiber towel to remove the excess glaze
- Step 6: Repeat steps 1 through 5 until the entire vehicle has the glaze applied

## **Facts and Tips**

- Glazes can help increase the depth and gloss in the paint
- The filling of light imperfections is only temporary and will return over time

- Do not expect a glaze to fill in too many imperfections, only the slightest imperfection can be masked
- Glazes typically cannot be layered, so only one coat is necessary for maximum results

## **What's Next?**

After applying the glaze to your paint, the next step is to protect the exterior paint. This can be done with a sealant or wax or a combination of both. If you want to apply both apply the sealant first and layer the wax on after.

# SEALANT



## Sealant Overview

The primary purpose of a [sealant](#) is to properly protect your vehicle from the elements. Sealants are designed to bond to your paint and provide roughly 3 to 6 months of protection. This is significantly longer protection than what a carnauba wax offers, which is typically 3 to 8 weeks. The barrier of protection that sealants provide help minimize contamination from embedding in to your paint and makes maintaining your vehicle significantly easier. Another benefit of a sealant is that it will enhance the look of your paint by giving you sharper reflections and more depth and gloss.

## Layering and Cure Times

Applying multiple coats will increase the strength of the protection and durability of the protection. The most important thing to note is that when you want to apply more than one coat, you have to let the previous coat cure. Each sealant's cure time will vary and environmental conditions (i.e. temperature, humidity, etc.) can impact cure times. Most sealants will cure within 1 - 24 hours and the vast majority of any sealant will be cured within the first hour. If you have the time waiting 24 hours is ideal to be absolutely certain but if you are in a rush waiting a minimum of one hour should still work very well for most sealants.

## Frequency

In general, [sealants](#) typically last between 3 to 6 months. There are many factors that go into determining how long a sealant will last. Some of the major factors are if your car is stored in a garage or outside, how many miles are driven, the type of weather conditions your vehicle is exposed to, how well your paint was prepped prior to applying the sealant, the frequency of washing your vehicle, and type of shampoo. The key is to reapply your coat of protection before the previous coat runs out. As you maintain your vehicle, keep an eye out for how well the water beads and sheets off your paint. If water begins to pool on your paint, then chances are there is little to no protection remaining and it's advised to apply another coat of sealant. A good rule of thumb is to reapply a coat of sealant once a season (4 times a year).

## How-To Apply a Sealant

The key when applying a sealant is to stretch the product as thin and far as possible. The saying "less is more" definitely applies to any quality sealant. We do not recommend applying a sealant with a [rotary buffer](#), but it is fine to use a [random orbital](#) or [dual action buffer](#) using a soft foam polishing pad. Hand applications also work very well and help you get in to tight spaces more effectively.

### Porter Cable 7424 XP

- Step 1: Center your blue pad on the backing plate
- Step 2: Apply 2 pea sized drops of your sealant on the pad (fresh pads may require a few extra drops)
- Step 3: Visualize your working area, since you're spreading the product as far as possible, it can be as large as a panel
- Step 4: Trace your working area with the sealant on your pad with the buffer off
- Step 5: Turn the buffer on a low speed setting (1 - 3) and spread the sealant evenly through the entire working area
- Step 6: Turn the speed dial of the buffer up to approximately 3 and start in a corner of your working area
- Step 7: Working from one corner to the next, move the buffer at controlled pace (approximately 3" - 5" per second) using no additional pressure
- Step 8: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 9: Continue this pattern until you have applied the sealant to your entire working area
- Step 10: Repeat this process, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 11: Once the sealant is spread thinly and evenly over the paint, shut the buffer off
- Step 12: Using a clean microfiber towel, remove the sealant from the paint
- Step 13: Repeat steps 2 through 12 until the entire vehicle has the sealant applied

### Flex XC 3401 VRG

- Step 1: Center your blue pad on the backing plate
- Step 2: Apply 2 pea sized drops of your sealant on the pad (fresh pads may require a few extra drops)
- Step 3: Visualize your working area, since you're spreading the product as far as possible, it can be as large as a panel
- Step 4: Trace your working area with the sealant on your pad with the buffer off
- Step 5: Turn the buffer on a low speed setting (1 - 3) and spread the sealant evenly through the entire working area
- Step 6: Turn the speed dial of the buffer up to approximately 3 and start in a corner of your working area

- Step 7: Working from one corner to the next, move the buffer at controlled pace (approximately 3" - 5" per second) using no additional pressure
- Step 8: Once you reach the opposite corner, follow the same path back to where you started, but overlap your first pass by approximately 50%
- Step 9: Continue this pattern until you have applied the sealant to your entire working area
- Step 10: Repeat this process, but this time use the opposite direction (if you were working top to bottom then bottom to top the first time around, change it to left to right and right to left overlapping movements)
- Step 11: Once the sealant is spread thinly and evenly over the paint, shut the buffer off
- Step 12: Using a clean microfiber towel, remove the sealant from the paint
- Step 13: Repeat steps 2 through 12 until the entire vehicle has the sealant applied

## Hand Application

- Step 1: Dispense about 2 pea sized drops in the center of the foam hand applicator pad
- Step 2: Outline your working area, since you're spreading the product as far as possible, it can be as large as a panel
- Step 3: Gently spread the sealant as thinly and evenly in your working area
- Step 4: Using light pressure spread the sealant on the paint using overlapping circular motions
- Step 5: Wait 10 - 20 minutes then use a clean microfiber towel to remove the excess sealant
- Step 6: Repeat steps 1 through 5 until the entire vehicle has the sealant applied

## Facts and Tips

- In general, sealants last somewhere between 3 to 6 months
- When applying a sealant, it's best to spread it as thin as possible
- In general, you should give each coat of sealant at least 1 hour to cure and bond to the paint
- Sealants can be layered to increase the depth and gloss as well as protection
- Sealants can be topped with a [wax](#) to get the best of both worlds in terms of looks and durability

## What's Next?

After applying a sealant, it's best to let the coat cure for at least one hour before applying a second coat or a wax. You may opt to top your sealant with a carnauba wax to help increase the depth and gloss in the paint. Natural carnauba waxes also tend to bead water better than sealants, so maintaining your vehicle is slightly easier when it is protected by a carnauba wax.

# WAX



## Overview

[Carnauba waxes](#) are a great way to protect your vehicle against the elements. Carnauba waxes often offer stronger protection than sealants do, but will not last as long. Waxes typically last 3 to 8 weeks, where a sealant can last up to 6 months. Carnauba waxes often bead water better than sealants, which makes your vehicle easier to maintain. Carnauba waxes are what you want to use when you want the absolute wettest finish possible.

## Layering and Cure Times

Applying multiple coats or layers of wax can add more protection, gloss and shine to the surface. When you want to apply more than one coat, you have to let the previous coat fully cure. Assuming you apply the wax nice and thin, the cure times will range from 1 - 24 hours. The exact time will vary depending on the specific wax, how it was applied, temperature, humidity, etc.

## Frequency

In general, carnauba waxes will last anywhere from 3 to 8 weeks. There are many factors that go into determining how long a wax will last. Some of the major factors are if your car is stored in a garage or outside, how many miles are driven, the type of weather conditions your vehicle is exposed to, how well your paint was prepped prior to applying the wax, the frequency of washing your vehicle, and type of shampoo. The key is to re-apply your coat of protection before the previous coat runs out. As you maintain your vehicle, keep an eye out for how well the water beads and sheets off your paint. If water begins to pool and look flat on your paint, then chances are there is little to no protection remaining and it's advised to apply another coat of wax. A good rule of thumb is to re-apply a carnauba once a month (12 times a year).

## How-To Apply a Paste Wax

- Step 1: Using a clean foam applicator pad, gently wipe it across the top of the paste wax (for a harder paste wax you may need to exert more pressure in a circular motion)
- Step 2: Make sure you only have a very thin amount on your applicator pad

- Step 3: You can apply the wax with light pressure in a circular, back and forth and/or up and down motion, remember to stretch the wax nice and thin
- Step 4: Wait 10 - 20 minutes before you buff off the excess wax with a clean microfiber towel
- Step 5: Repeat steps 1 through 4 until your entire vehicle has been waxed

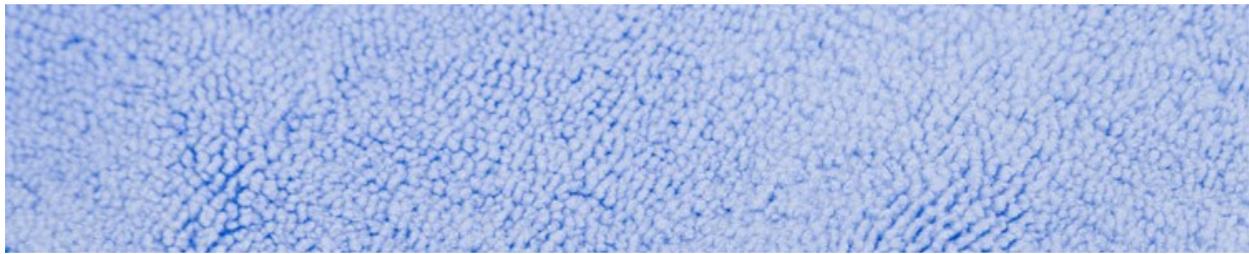
## **Facts and Tips**

- Carnauba waxes typically last between 3 to 8 weeks
- Apply your wax as thin as possible, only a microscopic layer of wax actually sits on your paint, excess wax is just wasted
- In general you should give each coat of wax 1 to 24 hours cure time
- It is best to work in the shade when applying and removing a wax
- Most waxes can benefit from 2 to 3 layers for maximum depth and gloss
- When your paint stops beading water, it is time to reapply a coat of wax

## **What's Next?**

After applying your wax, it is best to allow the coat to cure for 1 - 24 hours before topping it with another coat of wax. If you are done applying the wax congratulations on completing your detail work! Mark on your calendar when you completed this detail and create a maintenance schedule for yourself. You can now move on to the interior, exterior trim, wheel and tire care or the engine bay care section.

# MICROFIBER



## Overview

[Microfiber](#) products are absolutely essential to high quality detailing for both the interior and exterior of any vehicle. Microfiber towels, applicators, wash mitts and pads are used in virtually every area of detailing. You may use microfiber products to clean the paint, leather, wheels, glass, interior and so much more. The uses are literally endless so you can never have enough top quality microfiber products.

People often will splurge on their wax but spend far less on microfiber products when they are truly the backbone of a good detail. Investing in quality towels and caring for them will greatly increase your results while saving you time and money in the long run. The life of your microfiber products will vary based on the quality of the towel and how well you care for them. Not all microfiber towels are created equal so low quality towels may feel nice at first but they often break down rapidly with just a few washes. At DetailedImage.com we take great pride in selecting only top quality towels that will last for years with good care.

Microfiber is made up of a unique blend of materials with an innovative weave and fiber designs made of ultra fine synthetic yarn. The synthetic yarn is usually comprised of 70% - 80% polyester with 20% - 30% polyamide depending on the specific towel. Each strand is approximately 0.2 denier, which is equivalent to 1/20th of a strand of silk or 1/100th of a human hair. The cross section of a microfiber strand resembles an asterisk (\*), which allows them to collect and trap particles whereas traditional towels push particles around or temporarily collect them. On dry surfaces the microfiber towels use electrostatic energy to easily lift and collect large amounts of dust, dirt and other particles in to the micro-wedges of each fiber.

## Microfiber Care

Generally we recommend you maintain three groups of towels, storing them in separate containers. The first group is the pristine new towels that you use on the most sensitive surfaces such as the exterior paint, gages, navigation screens, etc. The second group are towels still in great condition but may be a bit worn, which we use for interior cleanings, glass care, leather treatments, etc. All other towels in the third group may have visible stains and be noticeably worn down. Use these towels for your dirty jobs like cleaning the exhaust tips, engine bay detailing, door jambs, etc.

When you receive your towels you should wash them just to ensure they are clean and free from any contaminants they may have come in contact with while in transit. Before washing any microfiber make sure you have removed any stickers or labels that come on some new microfiber towels. Never wash microfiber towels with any other fabrics as the microfiber towels will collect the lint, which can greatly reduce the effectiveness of any microfiber product. Microfiber is virtually free of lint so you can wash them with other microfiber products only. Do not use any detergent with fabric softener or bleach in it. Using fabric softener will deposit a coating on the microfiber strands that clogs the pores, which reduces absorbency, cleaning ability and can lead to streaking. If you are not sure what to use you can pick up the [DI Microfiber Micro-Restore Microfiber Detergent Concentrate](#), which has no fabric softener, bleach or added scent. If you are looking for additional cleaning power you can add one teaspoon per towel of distilled white vinegar.

When you are done washing the towels you can air dry them to be extra cautious, however many detailers need the help of a dryer due to time constraints which is generally fine. Do not use any dryer sheets and make sure you have cleaned the lint filter and removed any other lint particles. Again the microfiber towels will collect lint from other fabrics so do not dry it with other fabrics. Try to use just enough heat to dry the towels and do not overheat the towels. Excessive amounts of heat can harm the long term health of the towel.

As mentioned above the towels should be separated and stored according to their condition and we generally recommend three groups. Put them in an air tight storage container like a zip lock bag (i.e. [DI Accessories Reclosable Storage Bag](#)) or a rubbermaid container that is labeled to avoid dust and dirt settling on your recently cleaned towels. Remember microfiber products have a natural electrostatic charge and will literally pull contaminants in so it's very important to store them properly.

## Facts and Tips

- Always remove any tags on microfiber products to minimize the risk of marring the paint
- Always wash new microfiber towels prior to using them for the first time
- Never use fabric softener when washing or drying your towels
- Group your towels together, such as paint safe towels, wheel and tire towels, interior towels, etc.
- Adding distilled white vinegar to your rinse cycle can help further clean your microfiber
- If your towels lose their absorbency, try boiling them to dissolve product and reopen the pores
- Store your clean microfiber towels in labeled [microfiber storage bags](#)
- Always wash your microfiber with microfiber, avoid mixing them with other fabrics

# WHEEL AND TIRE



## Wheel Care Overview

Wheels can drastically change the appearance of any vehicle, which is proven by the huge aftermarket offering. Having wheels covered in brake dust is a complete eye sore and can take away from the overall look of any vehicle. Wheels that look brand new, on the other hand, can turn heads and really show off your car. Properly caring for your wheels is not difficult or time consuming when maintained on a regular basis.

Caring for your wheels consists of properly removing contamination, polishing them to a high shine, then protecting them to make maintaining your wheels significantly easier. Stubborn brake dust can often be difficult to remove, but usually can be restored to a like new finish with the proper products and tools.

## Wheel Care Frequency

We recommend maintaining your wheels with a basic wash of soap and water with a dedicated wash mitt, every time you clean your vehicle (1 to 2 weeks). Thorough cleaning of your wheels and adding layer(s) of protection should be done every 2 to 3 months.

## Wheel Care How-To

When caring for your wheels it is important that you have the proper products and tools. It is also important to know what type of wheels you have so you use the proper products on them. If you have factory alloy wheels, chances are they have a layer of clear coat on your wheels. This makes things easy because you can use a variety of wheel cleaners without worrying about oxidizing your wheels finish. You can also treat them like you would your clear coat on your paint, which means you can wash, clay, polish and protect your wheels. After market or upgraded wheels that have a high polished finish or bare metal need to be treated carefully, otherwise you may oxidize the finish and potentially damage your wheels.

Your wheels should be completely cool when you start to clean them. If you have been out driving, even just a little bit, give them ample time to cool down before using any cleaner on them. You can spray them down with water to help them cool down but it may take some additional time for them to reach air temperature so you can begin cleaning. Clean the wheels in

the shade whenever possible to avoid water marks or rinse them frequently while in direct sunlight.

## Cleaning and Maintaining

The best way to clean and maintain your wheels is by using some [automotive shampoo](#) and water with a dedicated [wash mitt](#). This is safe for every type of wheel finish and also means you are not spending money on wheel cleaners. This is a very effective way to care for your wheels if you follow two things 1) maintaining your wheels on a regular basis 2) you have a coating of protection on your wheels.

Soap and water will help remove loose contaminants and clean wheels that are well maintained but often times stubborn build ups will require a wheel cleaner. The safest bet is to use a pH balanced (aka pH neutral) wheel cleaner, such as [P21S Gel Wheel Cleaner](#) or the [SONAX Wheel Cleaner Full Effect](#). They can be used on any type of wheel finish and you can increase the cleaning power by letting the product dwell for several minutes if you are in the shade. Acidic wheel cleaners are highly effective but they can easily oxidize or tarnish polished wheels and other sensitive wheel finishes. Acidic wheel cleaners should only be used on factory wheels with a thick clear coat on them. When you are done rinse the wheels with a steady stream of water, be especially thorough near the lug nuts. If you see any remaining stains spot treat them with the same cleaner and a soft cloth or a wheel safe brush. Using a nylon brush or a brush with very stiff bristles can add swirls to the finish of the wheel, so look for brushes with very soft bristles or natural fibers. If you still have some remaining stains try a quality metal polish, which can generally be applied to most bare metals and clear coated wheels, see below (Polishing Wheels) for more information.

To effectively clean the inner barrels of your wheels, we highly recommend investing in an [EZ Detail Brush](#). If you have protected your inner barrels with some protection (chances are you needed to do this with the wheels off of the vehicle) then you can dip the brush in soap and water and brake dust should come off very easily. If your wheels were not protected, spray some wheel cleaner on the inner parts of your wheels as well as your EZ Detail Brush to get a deeper clean. We recommend cleaning the inner barrels of your wheels first because when you pull the bristles back out, it can transfer some dirt and contamination on the face of your wheels.

Using a [clay bar](#) on your wheels is an effective way to properly prep the surface and remove stubborn brake dust. Be careful using one on high polished wheels as you could add micro-marring or swirls that can be difficult to remove.

## Polishing Wheels

Polishing your wheels can help increase the depth and gloss of your wheels as well as remove minor surface imperfections. If your wheels have a clear coat on them, then you can treat them the same as you would polishing your paint. If your wheels consist of bare metal, such as the lip of your wheel, you can polish them using a metal polish to increase gloss and depth and remove minor imperfections.

## How-To Polish Wheels

- Step 1: Dispense a pea sized drop of [metal polish](#) on a [foam applicator pad](#)
- Step 2: Using as little pressure as possible, spread the polish thinly over the area you wish to polish
- Step 3: Starting with light pressure work the polish into the wheel, increasing pressure as needed
- Step 4: Continue working the polish into the wheel until the polish turns to a clear milky haze
- Step 5: Using a clean [microfiber towel](#), remove the broken down polish
- Step 6: Repeat steps 1 through 5 until the entire wheel has been polished

Note: Always test your polish on a small inconspicuous area before polishing your entire wheel.

## Protecting Wheels

When it comes to keeping your wheels looking like new for long periods of time you want to make sure your wheels are always protected. While you can use a sealant or wax to protect your wheels, there are some products that are designed specifically for your wheels. [Poorboy's World Wheel Sealant](#) is our favorite wheel protectant as it is easy to apply and remove, leaves behind a super slick surface so brake dust slides right off, is designed to withstand high temperatures that brakes produce, increases the depth and gloss of your wheels and makes cleaning your wheels a breeze.

## Wheel Care Facts and Tips

- Maintain your wheels with [shampoo](#) and water with a dedicated [wash media](#)
- Keeping a coating of protection on your wheels will make maintaining them significantly easier
- Always use a pH balanced wheel cleaner when dealing with after market wheels
- Acidic based wheel cleaners can easily oxidize a high polished finish
- Using a clay bar can effectively prep your wheels for polishing and protecting
- [Polishing](#) your wheels can increase the depth and gloss as well as remove some imperfections
- [Protecting your wheels](#) with a sealant is the key to easy maintenance on your wheels

## Tire Care Overview

Caring for your tires means more than just slapping on some [tire dressing](#) and calling it a day. A lot of detailing enthusiasts do not understand the importance of properly prepping your tires before applying a dressing. Properly prepping your tires can help increase the durability of your dressing and minimize tire dressing sling.

There are various types of tire dressing on the market: water based and silicone based. Water based tire dressings get absorbed into your rubber and can actually nourish your rubber

keeping them soft and flexible. Silicone based tire dressings mainly sit on the surface of your tire, which often leads to tire dressing sling. Silicone based dressings can dry out your rubber and also brown it over time. Silicone based dressings are typically glossier than water based dressings.

## Tire Care Frequency

We recommend dressing your tires after each wash (every 1 to 2 weeks). The condition of your tires will determine if they need to be cleaned and prepped. If you wash your tires and there is still dirt and contamination, we recommend using a [degreaser](#) on your tires to clean them and strip off any previous tire dressing. If you have high polished wheels, make sure the tire cleaner is safe for your wheel finish, in case you get product on them.

## Tire Care How-To

Cleaning your tires is pretty simple. We recommend using a dedicated wash mitt or sponge (foam media tends to work better since it's more durable) for your wheels and tires. Wash them with soap and water and assess if they need a deeper cleaning. If you are looking to get the most out of your dressing, we recommend cleaning your tires with a degreaser, such as [P21S Total Auto Wash](#), and a firm brush. Soak your tires with the degreaser and allow it to penetrate for a couple of minutes. Scrub your tires with the brush to remove the heavy contamination.

Applying the tire dressing is pretty straight forward. Simply dispense some tire dressing onto an applicator pad and work it into your tires. You want to use as little product as possible to prevent sling onto your paint. You are better off applying multiple thin coats of tire dressing than one thick coat. For complete even coverage, move your vehicle forward or backwards to apply dressing on the part of the tire that was closest to the ground.

## Tire Care Facts and Tips

- Silicone based tire dressings have a higher tendency to sling up onto your paint
- Water based tire dressings get absorbed into your tires and nourish your rubber
- Properly prepping your tires prior to applying a dressing can increase durability and prevent tire dressing sling
- Always apply your tire dressing in thin, even coats
- Drive your vehicle a few feet forward after applying the first coat of dressing so you can get an even application on the part of the tire that was closest to the ground

## EXTERIOR TRIM



### Overview

Your exterior trim is constantly exposed to the elements, but it often doesn't receive the same care you provide your exterior paint. We encourage you to make sure you do not neglect this area as it is very important to the end result. When the trim is cleaned and protected it helps create a sharp contrast with your paint for a stunning appearance when you are done. Paying attention to these areas is what helps separate a good detail from an outstanding detail.

### Frequency

If you maintain your vehicle on a regular basis the trim should be relatively clean to begin with. Every one to three months we recommend using a light degreaser to ensure it's thoroughly cleaned. For protection we normally recommend re-applying the protectant every one to two months. The cleaner will help remove stubborn build ups and the protectant will provide a beautiful finish with UV protection. If you haven't cared for the trim in a while spend a little extra time cleaning the surface with at least one to two passes. If the trim looks severely neglected you may want to consider using one of our products designed to restore the trim.

### How-To Treat Trim

Caring for the trim starts off with a cleaning and then you should assess the condition of the trim afterward. Most trim is vinyl, plastic or rubber so you can generally use the same type of cleaner on all three of these surfaces. Always clean the trim first while washing the vehicle with your shampoo and wash mitt. For a deeper cleaning spray a light degreasing solution on a microfiber towel and wipe the trim with medium pressure. The [P21S Total Auto Wash](#) is a popular choice because it's citrus based degreaser that is very gentle yet highly effective. When you are done the trim should look and feel much cleaner. If you still have stubborn build ups you can use a brush to work in the degreaser, but be careful you don't brush the surrounding paint.

If you have dried polish, sealant or wax on your trim (vinyl, plastic and rubber) try restoring it with the [Poorboy's Trim Restorer](#). It's a deep cleaning formula that also dresses the trim with a dark and rich glow. Apply a few drops no larger than the size of a nickel to a microfiber towel or

applicator and work it in to the surface with medium pressure back and forth. It will help remove the stubborn stains and leave a dark and shiny finish behind.

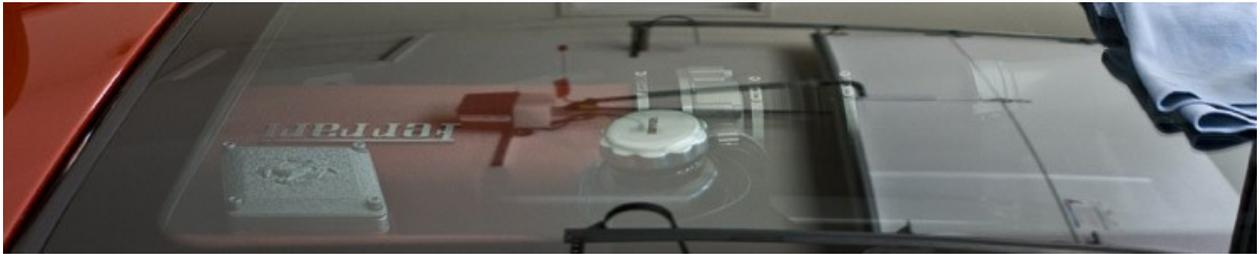
If your trim is clean but looks dull try using a product that will actually re-apply some of the lost color. The [TUF SHINE Black Restore Kit](#) or the [Black WOW](#) are both great options that will help restore the trim to like new. Each of them are powerful formulas that can help bring back that like new appearance that really lasts. They are both popular on vinyl, plastic and rubber surfaces.

For well maintained trim you will only need to use a protectant on it that you simply wipe on. A good protectant will provide strong UV protection and a fresh appearance to the trim. The [303 Aerospace Protectant](#) offers superior UV protection and a nice dark finish that is not glossy or oily, so it's very popular amongst detailing enthusiasts. Spray a light coating on a clean applicator or towel and wipe the trim back and forth. A nice light coating provides the best results and within minutes it will be dry to the touch. The 303 Aerospace Protectant and most protectants can be applied to vinyl, rubber, plastic and more.

## **Facts and Tips**

- Having properly cleaned and dressed trim creates more contrast with your paint
- For best results, degrease your trim prior to applying a dressing
- Make sure you are using a dressing that provides UV protection to prevent fading
- Using a brush can help provide a deeper cleaning to your trim pieces
- Old wax build ups can be removed with a degreaser

# GLASS



## Overview

Caring for your glass is not only important for aesthetics but it's also critical for driving safely. If too much glass cleaner is left on the glass you can expect to see streaking and hazing which can be a detriment to your vision. This can be especially dangerous when driving in the evening so make sure you take the time to clean your glass properly. We understand that streaks are common and very frustrating but don't worry we'll show you the products and techniques needed for streak free glass cleanings.

## Frequency

You should care for your glass on an as needed basis to ensure you always have the best visibility when driving.

## Interior Glass How-To

To get the most out of your glass cleaning both for the exterior and interior, the first thing you should do is roll your windows down a couple of inches so you can clean the very top of the glass effectively. Many detailers forget to do this step and if you drive with the windows partially down afterward you may see this area you missed. Follow the same technique that is outlined below for best results. We also recommend that you spray a light degreaser (i.e. P21S Total Auto Wash) on a cloth and wipe the inside and outside edges of the window seal to ensure that it is clean.

When caring for interior glass you are usually dealing with different problems than your exterior glass. Interior glass can be subject to bodily oils from people touching windows, product over spray from treating your trim pieces, smoke residue and most commonly moisture from simply breathing inside the vehicle. While reaching certain parts of interior glass may be difficult, caring for the glass is pretty straight forward.

One of the most common mistakes we see in detailing is people using too much glass cleaner. Use just enough cleaner to remove contaminants and residue on the glass. The more product you use the more you need to buff off in the latter steps. We recommend using a total of 3 microfiber towels to care for your glass. One all purpose towel to apply the glass cleaner, a second all purpose towel to buff off visible residue and a third, low nap, glass specific microfiber

towel to buff to a streak free finish. If you use just one towel you are almost guaranteed to see streaks afterward. We fold each one of these towels (16" x 16") in fourths and expose a fresh surface for each section of glass you are working on. This is especially important for the second and third towel so you can effectively remove the excess glass cleaner. Folding the towel in fourths gives you eight fresh surfaces and increases the value of any towel by utilizing the entire surface area instead of overusing just the middle section.

Another common mistake we see is working on the glass in direct sun. You must care for glass when it is cool and in the shade, otherwise you greatly increase the chances of leaving behind some streaking.

After you have put the vehicle in the shade the first step is to mist a small amount of glass cleaner on a microfiber towel folded in fourths. Avoid spraying your glass directly to prevent yourself from getting over spray on the trim pieces. It's actually best to spray the product onto the towel outside of the vehicle. Remember to use just enough glass cleaner to clean the glass, you can always mist your towel again if you need more product. Using the slightly misted towel apply some moderate pressure, slowly working the product into the glass while keeping the towel flat. Pass over each area multiple times to ensure you clean the glass from different angles. Take your second microfiber towel and buff off the excess product as best you can right after. Work in a logical pattern up and down and then side to side to ensure you don't accidentally miss any areas. Complete slow overlapping passes with moderate pressure while holding the towel flat. Finally, take your glass specific microfiber towel and repeat the same process to ensure no streaks have escaped.

The process listed above is pretty easy however reaching every corner of the glass can be challenging. We recommend using a Stoner Invisible Glass Reach and Clean Microfiber Mop Tool to effectively clean and reach the corners of your windshield effortlessly. Without a tool like this, it is difficult to apply pressure in to the lower corners of the front and rear windshield. Follow the same basic process listed above applying just enough cleaner to one microfiber bonnet and use the other glass microfiber bonnet to buff off the left over product. You can also simply wrap microfiber towels around the head of the mini-mop to get the same effect. Another tip when treating the front windshield is to sit on the passenger side of the car when cleaning the drivers side glass. This helps you get behind the steering wheel a little bit easier.

If you have tinted glass make sure you use a tint friendly cleaner that does not use ammonia or harsh chemicals. The Stoner Invisible Glass and the Chemical Guys Window Clean are two great choices that are completely safe on the tinted surfaces.

If you have fog forming on your front windshield make sure you turn off the recirculate mode from your heating and cooling system. The recirculate mode recycles the air currently in your cabin which contains more moisture. Moisture will often cling to the cooler glass forming a fog, which can reduce your visibility. Turning off the recirculate mode will help but if you are still having a problem try using the Glass Science Fog Clear after you have thoroughly cleaned the interior glass. It forms an invisible barrier on your glass that prevents moisture from being able to cling to the glass, which in turn helps you see clearly and drive safely.

## Exterior Glass How-To

Your exterior glass is exposed to various elements as you drive and even when you are parked. Caring for your exterior glass is somewhat similar to caring for your paint, but remember glass is actually much harder. You want to thoroughly clean it and then protect it from the elements. To clean the glass you can wash, clay and even polish it so it is truly clean and clear. By protecting your exterior glass afterward with a sealant your maintenance will be much easier and you can improve your visibility during poor driving conditions.

If your glass needs just a basic cleaning, wash it as you would the rest of your vehicle. When you are done, follow the same cleaning steps as you would for your interior glass (see above), using multiple microfiber towels and just enough glass cleaner.

To give your exterior glass a deeper cleaning, you may want to consider using a clay bar. A clay bar can help remove contaminants trapped on top of the glass and in the micro-pores of the glass. The process here is virtually identical to the way you use a clay bar on the paint.

If you have very faint water marks on your glass distilled white vinegar is a good home remedy. Unfortunately some water mark etchings are too deep for the vinegar solution to remove, so in these situations we highly recommend using the Glass Science Glass Scrub. This is a unique cream glass polish designed to dissolve mineral deposits and remove light etchings, sap, road grime and more. Even if you think your glass is clean the Glass Scrub will make it look noticeably cleaner and moisture will roll off easier instead of clinging to contaminants. The Glass Scrub needs to be applied to a wet surface, so the best time to use this product is just after washing and before drying. With the glass wet apply a dime sized drop to a wet foam applicator and buff it in with medium pressure in a circular motion. Use more product as need be but try not to use an excessive amount because the Glass Scrub needs to be thoroughly rinsed off when you are done.

After your glass is clean and clear you can protect it with a sealant. This will help moisture (i.e. rain, sleet and snow) form small beads that roll right off with ease. It will also help prolong the life of your wipers since you won't have to use them as often and there is less friction. You can use a glass specific protectant such as the Glass Science Rain Clear or a sealant used on the paint. The Rain Clear is a gel based formula that needs to be applied thin and buffed off with medium pressure and a clean microfiber towel. A traditional sealant like those used on the paint can also be used to protect the exterior glass. Both options will help repel the moisture and make driving much simpler no matter the weather.

## Facts and Tips

- Use as little glass cleaner as possible to minimize streaking
- Never use ammonia based glass cleaners on tinted windows
- Use multiple towels to clean your glass, this will help reduce streaking
- Always clean your glass when it is cool to the touch and out of direct sunlight
- Protect your exterior glass to reduce maintenance and to improve visibility during poor weather conditions

- Using a glass polish or distilled white vinegar can help remove water spots on glass
- Before cleaning the glass roll down the window and clean the very top of the glass and the window seal

# INTERIOR



## Overview

Caring for your interior is just as important as your exterior. You spend the most time inside your vehicle and your passengers often take notice of how clean, or not so clean, your interior is. It's important to protect your interior trim and leather from harmful UV rays that can potentially dry out and fade your interior. Keep your interior looking like new so you enjoy getting into your vehicle each and every time.

## Carpet Care

Caring for your fabrics is pretty simple, but unfortunately your carpets often see the most wear and tear since you are constantly bringing in dirt, debris and contamination from your shoes. First off remove your mats and be careful not to dump dirt and pebbles on the mat on to the carpets while removing them. A quick vacuum will help remove the obvious build ups if you haven't cleaned the carpets and mats recently, but don't get fussy you'll vacuum them again later in this process. A firm bristle brush is one of the most underrated tools in detailing and can be used next to loosen debris embedded in the carpets. Start brushing in a corner and work your way towards one mid point from all corners and sections. Once you've made a pile of debris, use a vacuum to remove it. Continue this same process for each fabric section and if you have fabric seats start with them and move on to the carpets and mats second.

After making an initial pass with the brush and vacuum, spot treat any stains with a [fabric cleaner](#). Most cleaners should dwell on the fabric for 1 - 2 minutes, then scrub them again with a bristle brush in multiple different directions with medium pressure. The brushes bristles will get in between the carpet fibers and help bring contaminants to the surface. At the same time the bristles will break up stains and build ups on the surface. If stubborn stains persist spray them again with your cleaner and dip your brush in a tray of hot water before scrubbing them again with medium to firm pressure. When you are satisfied with the cleaning, use the vacuum if needed to remove any visible debris.

Once your carpet has completely dried, we recommend protecting your carpet. The [303 High Tech Fabric Guard](#) is a great example of a fabric protectant. This will help prevent stains from forming in the future and will make cleaning your fabrics easier in the long run. Simply mist some product onto your carpet, mats and upholstery for a barrier of protection and you are

done. The carpets will continue to look and feel completely natural but they will resist moisture and stains

## Interior Trim

Most interior trim (dashboard, console, doors, etc.) consists of a combination of vinyl, plastic, rubber and leather, which can be cared for with many of the same products, so there is no need to get a product for each material. Some products are strictly meant for cleaning, some are just for protection and others have a combination of both. In general products strictly meant for cleaning or protection are more effective than options that do both. If you need a serious cleaning then we highly recommend picking up a separate cleaner and protectant. Even if your vehicle is relatively clean we recommend at a minimum of 1 - 2 times per year you use just a cleaner on the interior for a more thorough cleaning. If your vehicle is well maintained than you may be able to use a cleaner and protectant in one bottle for maintenance cleanings.

For the vinyl, plastic, rubber, carpets and mats the [303 Cleaner and Spot Remover](#) is a great product. It's a highly effective and very versatile formula that is very gentle. If you want some outstanding protection afterward the [303 Aerospace Protectant](#) is a great choice for rubber, leather, vinyl, plastic, etc. It leaves a nice dark finish that is not glossy or greasy while providing outstanding UV protection. If you want a cleaner and protectant in one the Einszett Cockpit Premium is a great choice for rubber, plastic, vinyl, etc. It has some light cleaning agents but also leaves UV protection that looks stunning with zero oily residue left behind.

## Leather Care How-To

Beautiful leather is synonymous with clean leather and when the leather is looking its best it is a source of tremendous pride for automobile owners. Leather seats are one of the very first things we notice when entering a vehicle and dirty seats not only look bad but it can harm the long term health of the seats. Modern day leather can be comprised from a variety of natural and synthetic materials. Very few vehicles actually use just raw leather and many of them have a coating on them to help protect against wear and tear. All of these material are prone to drying out and breaking down over time so regular maintenance is essential.

Caring for virtually any type of seat involves the same basic steps which are cleaning, conditioning and protection. Inevitably over time dirt, dust, human oils, etc. work themselves deep in to the seats and can be quite challenging to remove. A good leather cleaner should be able to safely separate those contaminants and help bring them to the surface for removal. A quality leather conditioner can help keep the leather soft and flexible yet strong and durable. Cleaners and conditioners should not leave a glossy or oily finish behind. Lastly some protection can help prevent UV fading while preserving the color and finish for decades to come. With proper care the seats will look and feel outstanding year round while increasing the resale value.

In general products that clean and condition in one bottle are not as effective as a separate cleaner and conditioner. The trade off with using separate products is that it can cost more and

they may take more time to apply. If interested in just a leather cleaner we recommend the Leatherique Prestine Clean or the Connolly Leather Cleaner. For conditioning the Leatherique Rejuvenator Oil and the Connolly Hide Care Leather Conditioner are two top notch choices. If you want to clean and condition in one bottle the SONAX Leather Foam and Einszett Lederpflege Leather Care are some of the many great choices we have available. For protection afterward the 303 Aerospace Protectant is always a favorite for it's world renowned ability to block UV rays.

## Leatherique Leather Care Application

[Leatherique leather care products](#) are some of the best in the industry. They have been the product of choice for the Bentley and Rolls Royce Owners Clubs. Leatherique can restore faded, hardened and neglected leather but it can also maintain brand new leather in great condition. They work extremely well on synthetic leathers "leatherette", coated leathers, vinyl seats and so much more! Both products use all natural active ingredients with no dyes to provide high quality leather care. The process leaves the seats feeling completely natural without a greasy or oily residue. The application is a two step process consisting of the Leatherique Rejuvenator Oil and Leatherique Prestine Clean. If you are working on seats that have not been well cared for recently you can expect to use more product, but well maintained or newer seats will need less product. The application of these products is unique in that the conditioner is applied first and the cleaner is applied second.

Start off using the Leatherique Rejuvenator Oil, which will penetrate the surface and condition your leather top to bottom. Apply the product liberally on your leather seats with either your bare hands or a soft applicator pad (i.e. terry cloth applicator). You can use a leather brush to help work the product deeper into the leather's pores if desired. Don't forget to do the head rests, back of the seats, sides, bolsters, arm rests and really work it in to creases and folds. If the product readily absorbs in to the seat you can apply more product until there is some visibly left on the surface. Each seat may need anywhere from .5 ounces to 2 ounces. When you are done back your vehicle into direct sun and if it's not sunny out you can use a hair dryer or turn on the heated seats. The heat will help open the pores of the leather and thin out the Rejuvenator Oil so it can penetrate in to every crevice of the leather. Ideally, you want to let the Rejuvenator Oil sit for a full day but a minimum of one to two hours still works very well. If none of these heat sources are available to you don't worry the product will still work well on it's own, just let it sit the minimum of one to two hours.

After you've let the product sit on the leather for as long as possible, the surface may be a bit tacky to the touch, which is a good sign. At this time the Rejuvenator Oil has removed many of the embedded contaminants and forced them up to the surface. Now you will apply the Prestine Clean directly on top of the surface with a clean applicator pad (i.e. terry cloth applicator) or clean microfiber towel. Apply anywhere from .5 to 1.5 ounces per seat, working it in thoroughly with light pressure. Let the Prestine Clean sit on the leather for another 15 to 30 minutes. Take a slightly damp towel, using warm water, and remove both products from the leather with light pressure. Immediately follow up with a dry towel to remove any visible moisture. The seats

should now look and feel incredible with no greasy or oily mess left behind at all. The leather will have a completely natural finish and be well nourished to help prevent future problems.

## **Facts and Tips**

- A clean interior shows you take pride in your vehicle
- Cleaning and conditioning your leather on a regular basis will keep the leather looking great year round
- Protect your leather with a product that blocks UV rays
- Leather seats should never feel greasy or oily and avoid any product that adds a shine to the leather
- A scrub brush is arguably the most important tool to clean any fabric
- Microfiber towels are great for interior cleanings because they collect and trap dust particles
- As you exit the vehicle try to not twist on the seat, over time this can remove material from the surface
- Make sure you and your passengers don't have any sharp buttons, belts, etc. on your bottom side that can harm the leather
- Keep the interior clean by removing any wrappers, bottles and trash as soon as possible
- Adding an air freshener is an easy way to create a smile

# ENGINE BAY



## Overview

Detailing the engine bay can often seem overwhelming and potentially scary but in reality it's one of the easiest areas to care for. Many owners fear they will ruin some part of the engine with a simple cleaning, but the truth is the modern day engine bay is so well protected it's hardly a concern anymore. With minimal effort you will be amazed at how easy and affordable it is to make your engine bay look like new again. You only need a degreaser, protectant, protectant applicator and a cloth or brush to work in the degreaser. The process should only take 20 - 45 minutes depending on how dirty the engine bay is.

## Frequency

The engine bay should be detailed every 3 - 6 months to keep it clean and well protected.

## Prep Work and Precautions

While the vast majority of vehicles are extremely easy and safe to work on we'll go over some basic precautions that apply to some select vehicles. If you are working on a classic car or any older model (mid 1990's and older) you may want to be extra cautious. Electrical components are generally well covered, but if you have any visible avoid hitting them with a high pressure water flow. They are meant to resist moisture but it's possible to get water in there if you were careless or if they were defective. To be conservative wrap exposed electrical connections in tin foil. The air intakes are usually protected but avoid hitting them with a direct stream of water, if needed cover them with a plastic bag because you don't want to flood the air intake with water. If you have an exposed aftermarket air filter make sure it's covered by a plastic bag. If you have any exposed belts or fans cover them up with a plastic bag or tin foil. After you have checked off these areas you are ready to begin detailing. Again most of these areas are not of concern to the modern day vehicle but you should check just to be safe.

## Engine Bay Detailing How-To

- Step 1: Prior to starting, the engine bay should not be hot but it's okay if it's just barely warm. Some detailers will turn the car on for 1 - 2 minutes just to get it a little bit warm.

- Step 2: Mist a light degreasing solution across the entire engine bay including the flipped up hood. Many light degreasers will work but the [P21S Total Auto Wash](#) is a common choice as it's a citrus based degreaser that is gentle yet powerful. Let it dwell for at least 1 - 2 minutes.
- Step 3: Agitate visible build ups with a brush or rag. A small brush like the [Mini EZ Detail Brush](#) is very helpful as it get's in to those tough to reach areas with ease.
- Step 4: Apply a fine mist of water starting top down to rinse away the dirt and contaminants.
- Step 5: Spot treat any remaining areas and re-rinse the engine bay down with a fine mist of water.
- Step 6: Dry the engine bay top down with a [microfiber towel](#) and you should see a noticeable improvement already. If needed, use [compressed air](#) beforehand to help remove any small pools of water that may be hard to access.
- Step 7: If any of the vinyl, plastic, or rubber are faded use a product like the [Chemical Guys Black on Black](#) or the [TUF SHINE Black Restore](#) to bring a darker and richer appearance back. If the material is not faded but you'd like to provide a darker appearance and protection, apply your favorite protectant to the surface. The [303 Aerospace Protectant](#) is a popular choice as it leaves outstanding protection and adds a like-new finish to anything vinyl, plastic and rubber. Do not apply the protectant or cleaners to any mechanical pieces like moving belts and fans.
- Step 8: Remove any plastic bags or tin foil you used and start the engine just to be certain you are all set.

Upon completion the engine bay should look outstanding and be protected for months to come!

## Facts and Tips

- Many fear cleaning the engine bay when it's actually one of the easiest areas to care for
- It can take as little as 20 minutes to clean and protect the entire engine bay
- The modern day engine bay is so well protected it's quite easy and safe to care for
- A degreaser, protectant and cloths are all you need
- Generally speaking water will not harm the engine bay, it's designed to resist moisture
- Don't use WD-40 or Windex to clean the engine bay
- Clean and protect the engine bay at least twice per year
- Don't forget to care for the hood that gets flipped up
- An EZ Detail Brush can help you reach down in to the engine bay