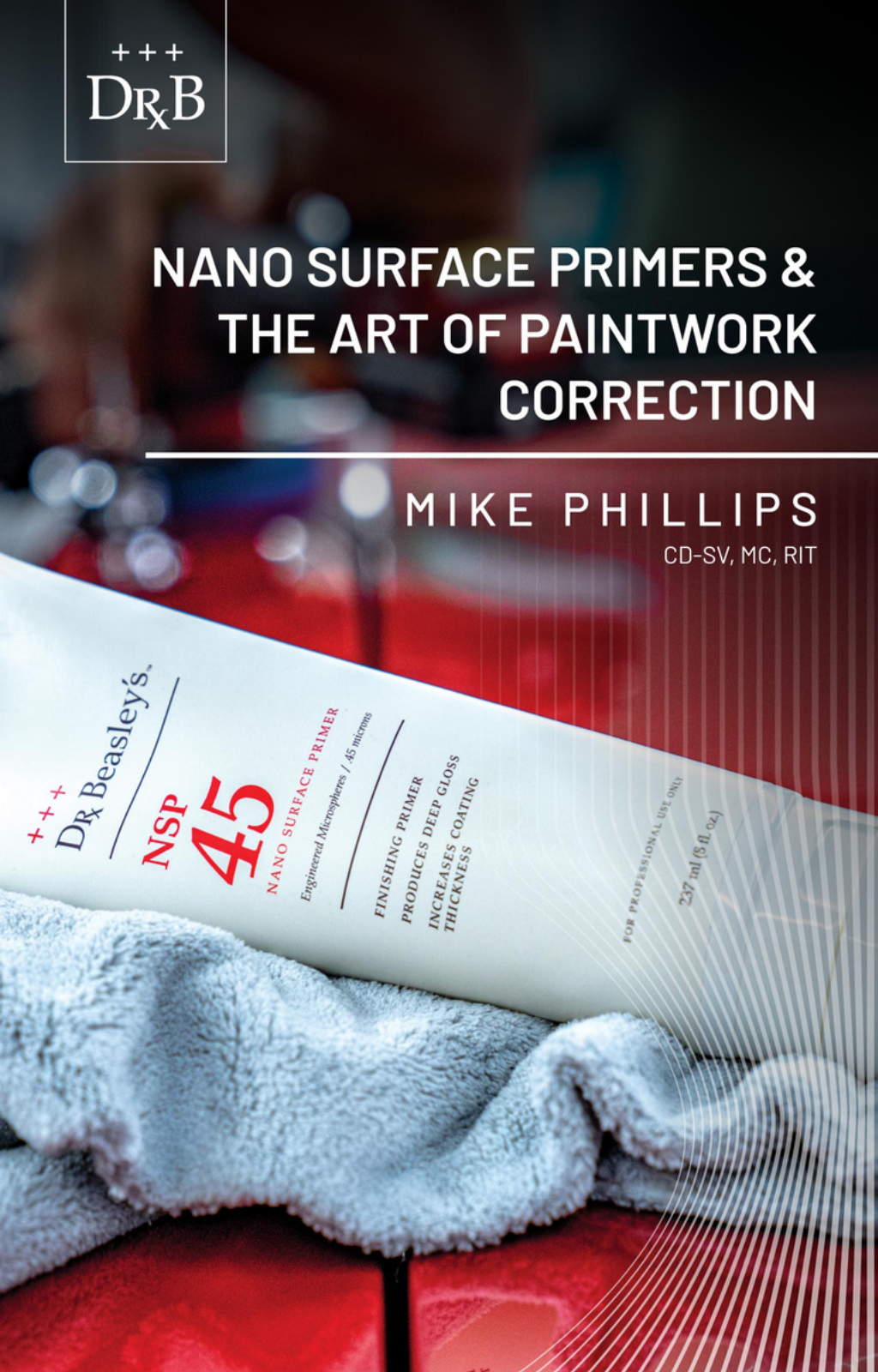
NANO SURFACE PRIMERS & THE ART OF PAINTWORK CORRECTION

MIKE PHILLIPS
CD-SV, MC, RIT



INTRODUCTION

Jim Lafeber, the founder and chemist for Dr. Beasley's, also owns and operates a detail shop in Chicago called Simon's. The problems he sees on the cars going through his garage day in and day out inspire his detailing products.

Paintwork correction, paired with ceramic coating protection, is a cornerstone of Simon's high-end detailing packages. Detailers spend hours, even days perfecting a paint's finish before applying a durable ceramic coating to protect the newly pristine paint. But when Jim analyzed the industry-standard paint correction process, he realized it was an inefficient, even ineffective procedure.

The problem was in the technology. The polishes and compounds on the market were almost universally designed for organic wax, not inorganic ceramic coatings. They were filled with silicone oils and paraffin that impede ceramic coating bonds, leading to premature coating failure.

On top of that, the abrasives used in these outdated polishes were slow to work and produced their own defects that required removal. They did nothing to prime for ceramic coating bonds.

These problems drove Jim to develop a paint correction system that produced better results faster while making ceramic coating protection more effective: **Nano Surface Primers**.

In this ebook, our Chief Education Officer Mike Phillips will explain the technology in-depth before laying out step-by-step instructions on how best to use NSPs at your own detailing business, or with your own car.

Enjoy Mike's guide, and if you have any questions, please send us an email at myteam@drbeasleys.com or reach out to Mike directly via his contact info on the last page.

Victor Espeland
Communications & Brand Manager
Dr. Beasley's

TABLE OF CONTENTS

WHAT IS PAINTWORK CORRECTION? 1

Defining Paintwork Correction 1

Clearcoats Are Thin 1

Abrasive Technology: The Most Important Factor 2

Carrier Technology: The Other Part of the Equation 5

NSP TECHNOLOGY, EXPLAINED 6

Microsphere Abrasive Technology 6

Nanogel Carrier Technology 8

WHICH NSP SHOULD I USE & WHEN? 10

Four Factors to Consider 11

MULTI-STAGE PAINTWORK CORRECTION W/ NSPs 13

Step 1: Prep Wash 13

Step 2: Decontamination 13

Step 3: Taping & Covering Up 14

Step 4: The Test Spot 14

Step 5: Paintwork Correction 22

Step 6: Ceramic Coating Application 24

CONCLUDING THOUGHTS 27

ABOUT THE AUTHOR 28

1. WHAT IS PAINTWORK CORRECTION?

I've been writing about paintwork correction for nearly 30 years. The first ever car detailing how-to article I ever wrote and published dates back to Friday, October 28th, 1994. The title? *How to Polish Paint by Hand*.

Since then I've accumulated a lot of knowledge on the topic, and I want to share that knowledge with you as a foundation before I get more in-depth explaining the Nano Surface Primer technology and how best to use it. So let's dive in!

Defining Paintwork Correction

In the original ebook on Nano Surface Primers written back in 2020, Dr. Beasley's chemist Jim Lafeber defined paintwork correction as "the act of removing defects from automotive paintwork using abrasive technology".



Dr. Beasley's Jim Lafeber

What some people don't realize is that this is a destructive act — to remove the defects, you need to remove paint from the surface until the defect is gone.

This brings us to one of my favorite topics in detailing: the thin nature of factory clearcoat.

Clear Coats are Thin

In my good natured attempt to help the average person understand the importance of always using the least aggressive product and process to get the job done, I wrote an article by the title "Clearcoats Are Thin" back in 2014.

I always do proper research when gathering information for any article or how-to book I write and in this example, I had an in-depth conversation with a long-time friend: Dr. David Ghoudussi. Dr. David Ghoudussi (A.K.A. Dr. G) is the owner and head chemist for his own car care company, Optimum Polymer Technologies.

Before he started Optimum, however, he helped to develop the basecoat/clearcoat paint technology used on all cars today, working with companies like DuPont (now Axalta) and PPG.

During this time, Dr. G and his team did durability testing and found that in order for the entire matrix of paint (E-coat, primer, basecoat and clearcoat) to stay durable when exposed to the elements, at least 2 mils (50 microns) of clear needed to be sprayed over the basecoat. Spraying anything less led to premature clearcoat failure.



HUMAN HAIR
95 MICRONS

STICKY NOTE
76 MICRONS

CLEAR COAT
50 MICRONS

To convey how thin 2 mils is in a way the average person can wrap their brain around, I measured some common household or office items.

I found on average that a sticky note is 3 mils or 76 microns. That means the factory clearcoat on a modern car is thinner than a sticky note. That's thin!

For this reason we should all follow the sage advice:

Use the least aggressive product and process to get the job done as this will leave the most paint behind to last over the mechanical service life of the car.

This brings us to what I consider the most important topic in paintwork correction: abrasive technology.

Abrasive Technology: The Most Important Factor

In the detailing world, I've noticed over the decades that this industry tends to attract people that not only have a strong work ethic (important) but are also ego-driven — even, dare I say, "alpha male" type personalities. Not all detailers, just a pattern I've noticed over the decades.

Here's how this presents itself: a person details a car in horrible shape and makes it look better than new. The person shares pictures showing how great the car looks, essentially saying, "Look how great I am!"

Here's the thing, though. Yes, it does take some degree of skill, knowledge and even talent to take a diamond in the rough and turn it into a glistening gemstone. But I've also taught people who have never detailed a car before (let alone use a polisher) how to turn out pro-grade work on their first time.

These people have no skill, no knowledge base and no experience. Yet they're able to take ugly paint and make it look beautiful. How do they do it? Well, they have the most important factor working in their favor: Great abrasive technology.



The Two Categories of Abrasive Technology

If you talk to an expert, they'll tell you there are multiple types of abrasive technology. Diminishing, super micro, etc. That's true, on a technical level. But for me, there are only two types of abrasive technology: *great and everything else*. This might sound dogmatic or very black and white, but follow my logic.

Great abrasive technology has the ability to remove defects out of paint without leaving its own defects behind. Everything else is old school abrasive technology, and while old school tech might be able to remove swirls and

and scratches, in the process it leaves its own scratches in their place. I'm sorry, but we cannot in good conscience call this lower performing abrasive technology "great". Use it if you have to, but your results will never look as good as they would using better technology.

Why does this old school technology leave so many new defects in its wake? It's because the particles that make up the abrasive technology are irregular in shape, wildly varying in size and poorly distributed within the carrier (the substance that the abrasives are suspended in).

These factors combine to produce an inconsistent cut that, like mentioned earlier, will remove defects but also instill defects of their own.



"Old school" abrasives — in this case, DAT (Diminishing Abrasive Technology).

Great Abrasive Technology Preserves Clearcoat

Let's circle back to the topic of clearcoats and how thin factory clearcoats are. With this fact in mind, you really start to understand how important great abrasive technology is.

Consider this: If you do paintwork correction using not great abrasive technology (or what I like to call "Caveman Compound" or "rocks-in-a-bottle") you will have to remove clearcoat from the paint twice — once to remove the scratches on the paint, and again to remove the defects caused by the old

technology abrasive. Knowing that, wouldn't it have been better for the paint to use great abrasive technology?

Carrier Technology: The Other Part of the Equation

As I mentioned earlier, the "carrier" is the part of a polish or compound's formula that "carries" the abrasive onto the paint when buffing and provides lubrication between the paint and the buffing pad. Like abrasives, there's great technology and then there's less-than-great, "old school" technology.

The "old school" technology uses organic ingredients that decay over time and hinder the bonding of ceramic coatings. These antiquated products rely on silicone oils, mineral oils and other organic lubricants and fillers.

These organic substances use chemistry that was formulated back when the protection ingredients were also organic — ingredients like carnauba wax, beeswax, montan wax, etc.



Organic, carnauba-based wax (left) and inorganic, ceramic-based nanocoating (right).

That means that if you are going to apply a ceramic coating after polishing, you have to remove the residual organic lubricants and fillers left behind by the polish.

Otherwise, as we mentioned earlier, all of the organic substances from the polish residue will impede the inorganic ceramic bond.

Removing the organic material isn't as simple as a quick wipe-off; you have to use a chemical (typically an isopropyl alcohol dilution) to fully remove and ensure a durable ceramic coating bond.

So where does "new school" carrier technology fit in? Let's dive-in by explaining Nano Surface Primers more broadly.

2. NSP TECHNOLOGY, EXPLAINED

Dr. Beasley's Nano Surface Primers are, as we like to say, "the future of detailing". The chemistry behind NSPs factor in modern paint protection technology to produce a more efficient and effective tool for both correcting paint and applying durable protection.

The technology behind Nano Surface Primers has two components: the microsphere abrasive that cuts the paint and the nanogel carrier that delivers the abrasive and primes for ceramic coating.

That last part is crucial as to why we call these Nano Surface Primers instead of polishes or compounds. Polishing or compounding by necessity means removing part of the clearcoat in order to level out the scratch.

Nano Surface Primers, on the other hand, actually add material to the clearcoat that's primed for ceramic coating application. Hence why we call them "primers", not polish or compound.



Microsphere abrasive particles.

Microsphere Abrasive Technology

In the previous chapter we talked about my definition of the two kinds of abrasive technology: great and everything else.

We explained that not-great abrasive technology is inconsistent in size, jagged in shape and poorly distributed within the carrier, resulting in an uneven cut that produces as many defects as it removes.

But what about the "great" abrasive technology like the NSP microsphere abrasive technology? What makes it "great"?

Engineered Abrasives

Unlike other abrasive technology, which is mined from the earth and then processed by a limited number of manufacturers, microspheres are engineered by material scientists.

This means their size and shape can be perfectly controlled, unlike the naturally occurring abrasives found in the "old school" polishes and compounds. In the case of microspheres, they're engineered to be near-perfectly spherical and controlled in size with a variance of only .5 microns.



Perfectly Formed and Uniform in Size

Because these microsphere abrasives are carefully engineered and controlled in size down to the micron level, they can achieve a precise cut when abrading paint or other surfaces. This unique aspect, when compared to other abrasive technology commonly used among other brands, means they can cut fast while achieving a uniform leveling of the surface.

In simpler terms, this spherical cutting action enables the technician to remove defects in a more controlled manner while leaving more paint behind on the car.

Conventional abrasive technology offers dramatically less control over particle size as well as particle shape. This means these old abrasive technologies cut the paint in irregular patterns, causing deeper abrading of the surface at the same time shallow abrading of the surface is taking place. This leads to uneven leveling of the surface and in the long run, more paint than necessary will tend to be removed.

Knowing the clearcoat layer of paint is already thin from the factory, it's so important to take control of the abrading process as best as you can to remove defects while leaving the most paint on the car.

The uniform size of the microsphere abrasive particles and the resulting more uniform surface level created, means a flatter, smoother surface at the microscopic level, which shows up to our eyes as a glossier, shinier surface and that is the end-result goal when doing any type of paint correction.



Nanogel Carrier Technology

As I explained in the first section of this book, polishes, compounds, and primers require a "carrier" to deliver the cutting abrasives onto the pad and paint.

Outdated polishes and compounds use carriers that don't distribute abrasives evenly and contain silicone oils that must be removed to apply a coating.

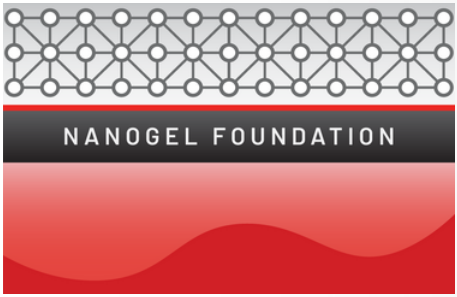
NSPs utilize a new type of abrasive carrier called "nanogel". Nanogel has many advantages over polishes and compound carriers. It contains no silicone oils that must be removed before coating, decreasing the amount of time required to apply a ceramic coating and increasing your ultimate efficiency.

Nanogel more evenly distributes abrasives throughout itself as well, and the benefit from this is uniform leveling of the surface and more efficient product usage.

The more uniform, smoother, and flatter the resulting surface, the greater the shine and gloss. A smoother surface also resists degradation and corrosion dramatically better than an irregular surface. This also means you need less product to cut the paint as the abrasives are evenly distributed. Carriers that unevenly clump abrasives together require you to use more product to actually get results.

Another benefit of nanogel is that it resists heat build-up and heat retention. This helps to keep the abrading process cooler to the paint surface. In a perfect world, we would buff paint without generating any heat, but due to the friction between the paint and the pad, this is impossible.

The next best thing is to use a formula that is engineered to run cooler, which helps to prevent paint swelling, expansion, microfractures called interstices. Plus, it helps to prevent the possibility of burn-through either on flat surfaces or edge.



The most important benefit of the nanogel, and what truly makes it unlike the carriers of conventional compounds, polishes and AIOs, is the ceramic foundation it builds while correcting the paint.

This ceramic foundation effectively restores the protective clearcoat material lost during the correction process, creating a base film-build for the ceramic coating to layer on top of, ultimately producing a thick layer of protection with a deep gloss. The foundation is also *primed* with anchor points for bonding, ensuring the most durable ceramic coating bond possible.

3. WHICH NSP SHOULD I USE, AND WHEN?

There are four Nano Surface Primers dedicated for paint: NSP 45, NSP 95, NSP 150 and NSP Z1. The numbers correspond with the size of the microsphere abrasive particle used — NSP 45 is .45 microns, 95 .95 microns, 150 1.5 microns and Z1 a blend of .45 and .95 microns.

When you think about NSPs, think of them as high tech substitutes for the old-fashioned compounds, polishes and AIO (All-In-One) products of yore. Check out our breakdown graphic below.



NSP 150
1.5 µm microsphere
Removes deep scratches, water spots and sanding marks

NSP 95
.95 µm microsphere
Removes shallow swirls, scratches

NSP 45
.45 µm microsphere
Finishes & produces gloss

NSP Z1
.45/.95 µm microsphere
Removes shallow swirls, scratches & applies ceramic coating

What NSP you use depends on the type of paintwork correction you'll be doing. Multi-step paintwork correction? You'll probably start out with NSP 150 as your compound analog, then finish out with NSP 95 or NSP 45 as your polish analog before applying a ceramic coating as your LSP (Last Step Process). One-step paint correction? Use NSP 95 or 45 for your polish, then ceramic coating for the LSP.

AIO paint correction? Just use NSP Z1 — it will act as a polish analog while applying a ceramic coating at the same time.

If you're already familiar with the basics of paintwork correction, the above information should give you everything you need to know about what NSP(s) to use for any given situation. If you're not familiar with the basics of paintwork correction, choosing what NSP(s) to use will depend on four factors.

1. How the owner washes the car

How a person washes their car determines the future condition of the paint. If a person takes their car to an automatic wash with spinning coarse brushes (A.K.A. a swirl-o-matic car wash), the paint is just going to get scratched again.

It makes no sense at all for you or anyone to do a major, multiple-step paint correction to remove all the current paint defects because they will all be back after just one or two trips through this type of automatic car wash. Stick with a one-step correction or AIO.



2. The condition of the paint

Besides doing a test spot, which I will cover in-depth below, you also need to inspect the condition of the paint visually to know which NSP and level of paint correction to use to remove the defects safely.

Visually looking at the paint using good lighting will tell you which end of the paint condition spectrum the paint is in. It's either hammered, like new or somewhere in-between.

3. The way the vehicle is used

Just as it's important to consider the current condition of the paint, it's also crucial to think about how the vehicle is used. Is it a garage queen driven to local car shows on sunny weekends? Is it a daily driver parked outside 24 hours a day, 7 days a week?

The fact is, it makes less sense to put a show car finish on a daily driver as compared to a garage queen. I'm not saying we shouldn't create a show car finish on our daily drivers, but it will be harder to maintain this type of finish simply due to the normal wear-and-tear a daily driver receives.



4. The goal or desired outcome of the owner

What does the owner of the vehicle want? While you may be eager to prove your skills and turn the vehicle into a glistening gemstone with a multi-step paintwork correction, the owner may not even care about that level of perfection.

They might not even notice swirls and just want the paint to look "shiny". If that's the case, don't waste your energy producing results the owner won't appreciate — use an AIO like NSP Z1!

4. MULTI-STAGE PAINTWORK CORRECTION WITH NANO SURFACE PRIMERS

STEP-BY-STEP INSTRUCTIONS

Now that we've laid out the basics of paintwork correction and how that translates to the individual NSPs, I'll guide you through the actual process of a multi-stage paintwork correction. Remember, this isn't what you would necessarily do for every car — use the four criteria I listed before to decide if this is the best process for you or your customer's vehicle.

STEP 1: Prep Wash

The first step in the paintwork correction process with Nano Surface Primers is to clean the paint as well as possible using a high quality pH balanced soap like Dr. Beasley's Premium Body Wash. This will expose defects and remove any particles that could be caught by your buffer and scratch the finish.



STEP 2: Decontamination

The second step in the paintwork correction process is decontaminating the paint. This removes deeper contamination in the finish like iron deposits, industrial fallout and traffic pollution that can impede the ceramic coating bond. I like to take care of this step with a chemical decontaminant like Dr. Beasley's Total Decon.

Sometimes more stubborn contaminants remain after a chemical decontamination. In cases like these, following with a mechanical decontamination step (using a clay bar or mitt) may be necessary.

STEP 3: Taping & Covering Up

The good news about Nano Surface Primers? They don't stain trim! So for less-intensive services like an AIO correction with NSP Z1, you can probably forgo the taping off of any plastic trim.

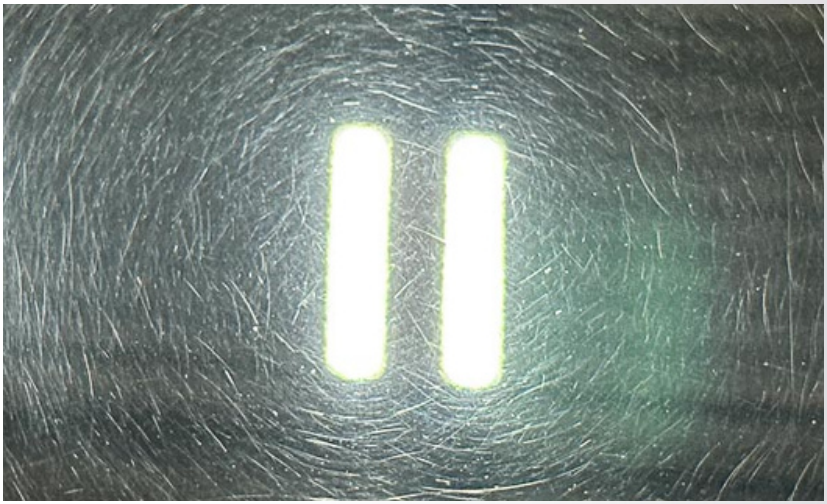
For more intensive procedures however, like multi-stage paintwork correction, taping off plastic trim is a good idea as the nanogel can smooth-out textured plastic if left to sit on trim for too long.

STEP 4: The Test Spot

A "Test Spot" is a small section of paint on a car used to test different combinations of products, pads, tools and techniques to perfect a paintwork correction process that can then be applied to the rest of the vehicle's paint.

The reason you want to do a Test Spot is to ensure your choice of product, pad, tool, and technique removes the defects to your satisfaction. You also want to make sure your choice of product not only removes the defects but does not leave its own defects behind.

If you were to skip this step, you could end up completing the entire car only to realize your process wasn't effective at removing the desired defects. The Test Spot keeps you safe.



Understanding the "Section Pass"

Before you can do a Test Spot, you first must be familiar with the term "section pass". A section pass is when you move the polisher back and forth, or front to back with enough overlapping passes to cover the entire section at one time. This would be ONE section pass.

Each time you move the polisher over the entire section you're buffing, count it as an additional section passes. For example, if you move the polisher over the section you're buffing 8 times, this would be 8 section passes.

Large Body Panels

Most body panels are too large and include a design of curves and planes that make it so you cannot buff out the entire panel at one time. The correct way to tackle any given panel is to first look at it, take note of any variety of planes, curves, tight areas, raised body lines and/or components. Components can be roof antennas or side mirrors, etc.

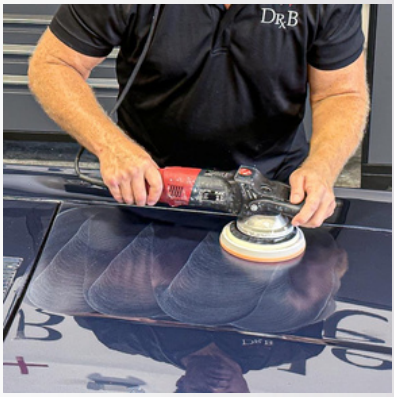


After examining the panel, you divide it into smaller, more easily polishable sections according to the shape of the panel. It'd be a lot easier if every body panel was just a large, flat square... but then all our cars would look like squared-up boxes with windows and wheels!

Once you have ascertained the shape of the body panel to be buffed, you'll want to use a crosshatch, overlapping pattern of section passes for any larger, flatter sections. If the panel is thin (for example the section of paint just past the top of the windshield but before the start of the sunroof) then you'll want move the polisher in a back-and-forth motion.

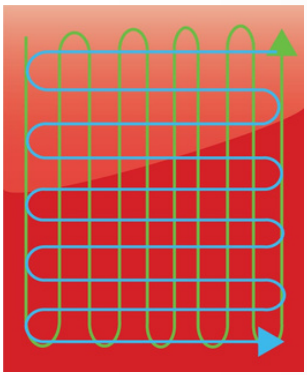


Back-and-forth motion. Best for thin panel sections.



Crosshatch motion. Best for large, flat panel sections.

How Many Section Passes Should I Make?



Two overlapping section passes.

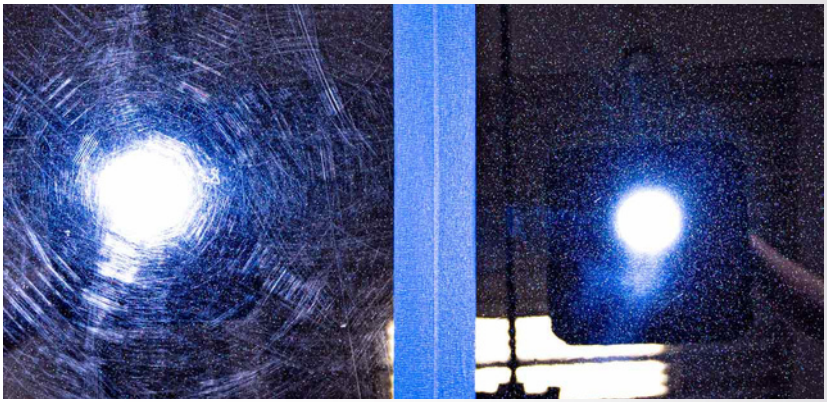
There's no hard rule for the number of section passes to make over a section of paint. There's simply too many variables that affect how much buffing is required to remove the defects.

A good general rule of thumb, however, is 8 section passes. When doing a crosshatch pattern this means you'll go side-to-side 4 times and front to back 4 times to equal 8 complete section passes. When doing linear section passes, buffing from one end of the panel and back to where you started is 1 section pass – so you would do this 8 times to do 8 section passes.

Where to do a Test Spot

The best places to do a Test Spot are on horizontal panels like the hood or trunk lid. Why? Because being able to adequately inspect the results is vital to doing the Test Spot. It's simply easier to look down at a body panel about waist high and scrutinize the results with a strong light than it is to do this on vertical panels like fenders and door.

The horizontal panels will also typically show more signs of wear-and-tear (swirls, scratches, water spots and oxidation) as they are more exposed to the elements and destructive actions.



Tapeline or No Tapeline?

If you look through social media, you'll often see people use a strip of painter's tape placed on a section of paint, with the Test Spot being performed on one side of the strip. There's 2 reasons people do this:

- Makes it easier to gauge before and after results with your eyes.
- Makes it easier to capture before and after results using a camera for pictures and videos.

In the real world, you can do the Test Spot without using a strip of tape. Just make sure you're looking in the correct areas when inspecting the results.

A word of caution, though: If you do use a tapeline, never buff directly ON the tapeline. In some cases this can leave a line or physical deformation in the paint that you cannot remove. It's happened to me, which is why I'm cautioning you!

What NSP Should I Start My Test Spot With?

This is important because the BIG PICTURE goal is always to use the least aggressive process to get the job done. The other important factor that comes into play is determining paint hardness or paint softness.

When doing a Test Spot with Nano Surface Primers, generally speaking you want to use NSP 95. The reason is because NSP 95 is less aggressive than NSP 150 and more aggressive than NSP 45. Using too powerful of a product like the NSP 150 can hinder your ability to determine paint hardness, while using a more gentle product like NSP 45 won't remove enough paint defects to gauge effectiveness or paint hardness unless the paint is super soft.



What Pad Should I Start My Test Spot With?

When doing your first Test Spot, you should always use a foam polishing pad. Just for reference, there are three basic categories of foam pads: Foam cutting, foam polishing and foam finishing. You want to use a pad that is in the middle of this spectrum, and this would be a foam polishing pad.

Step-by-Step Test Spot Directions

1. Locate a section of paint on the hood or trunk lid where you can easily see the level of paint defects you want to remove. The area should be about the size of an average microfiber towel, or 16" by 16".

2. Attach a HDO Orange Polishing Pad (or equivalent polishing pad) to the backing plate on your orbital polisher and apply 3-4 dime-sized drops of NSP 95 onto the face of the pad, equally separated across the pad.



3. Place the face of the polishing pad against the paint for the section you're going to buff for your Test Spot. Turn the polisher to the ON position at a medium speed. Spread the NSP 95 over this area to be buffed.



4. Next bring the speed up to a higher speed setting so that as you're moving the polisher over the paint you see good pad rotation and pad oscillation.



5. Using a crosshatch pattern, make overlapping section passes using about 5 pounds of downwards pressure on the head of your polisher. Don't press too hard and be sure to maintain pad rotation.

6. As you make your section passes, use a medium-to-slow arm speed (how fast you're moving the polisher over the surface) and overlap your passes by about 50%.

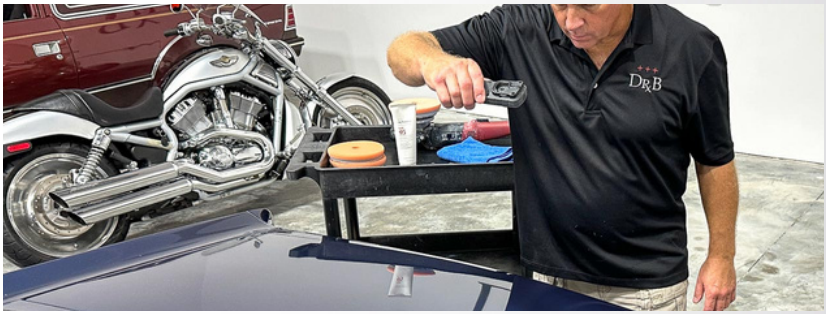
7. Count each section pass out loud to keep track of how much you're buffing over the surface. Make 8 section passes total.



8. After you've made 8 section passes, turn the polisher off before lifting the pad off the paint. This will prevent the spinning pad from slinging product splatter onto the car and yourself.

9. Using a clean, inspected microfiber towel, wipe away any residue or film left by the product.

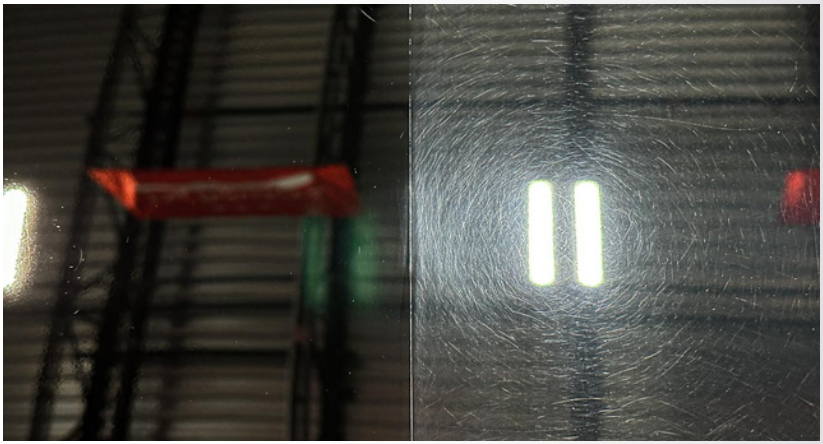
10. Inspect the results with good lighting and compare with the previous condition of the paint.



Evaluating the Test Spot Results

If the results look good, you can now duplicate this same process over the rest of the car. This would also be an indicator that the paint is not hard but medium-to-soft and/or the defects are shallow.

If the results are NOT satisfactory, you'll need to do a second Test Spot.



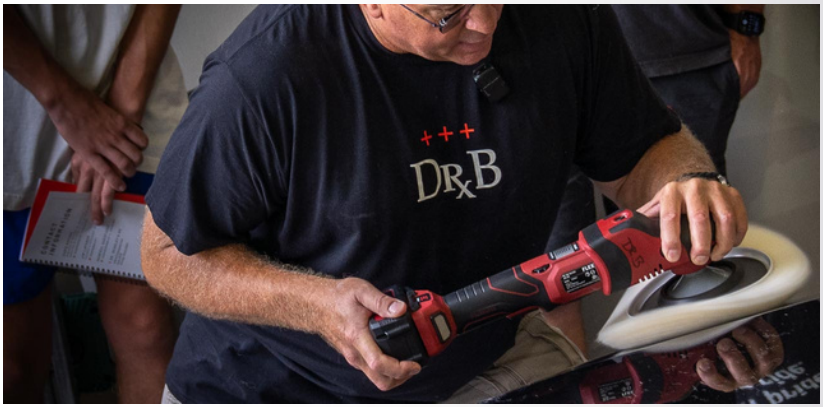
What to Use for a Second, Third or Fourth Test Spot

When doing a second Test Spot, you MUST do it on a fresh section of paint. If you do a second Test Spot on the same section of paint where you did the first Test Spot, your results will be skewed because you've already buffed on this section of paint.

For a second test spot, use NSP 150 with a HDO Orange Polishing Pad. Again, the idea being to always use the least aggressive process to get the job done so you leave the most paint behind.

If the combination of NSP 150 and a foam polishing pad does not remove the defects to your satisfaction, then do a third Test Spot, this time switching to a HDO Blue Cutting Pad.

If the combination of NSP 150 and a foam cutting pad do not remove the defects to your satisfaction, this can be a sign of hard paint and deep defects. Do a fourth Test Spot, now using NSP 150 with a Microwool Heavy Cutting Pad.



STEP 5: Paintwork Correction

Once you've dialed in your test spot and proven your process works to achieve the results you need, it's time to duplicate that process across the rest of the vehicle.

Start at the Top, Work Your Way Down

A good best practice is to start with the highest portion of the vehicle and then work your way down. If you start with lower panels and then move to higher panels, the action of buffing out a panel can sometimes sling some product splatter, and this means you could get product splatter onto panels you've already buffed and wiped clean. Having to re-wipe a panel means repeating steps and thus wasting time.

Dividing Larger Panels into Smaller Sections

Start out by dividing the roof into smaller sections. When you move onto the next section, be sure to overlap a little into the previous section for uniform material removal (UMR).



Start in the Middle of Horizontal Panels

For extremely large panels (usually roofs and hoods) a good best practice is to start at either end and work the middle of the panel first and then work towards the section closest to you. If you work the section closest to you first and then reach out to buff the middle section, you risk rubbing the polisher's power cord over the already buffed section.

The Mechanics of Buffing Out a Car from Top to Bottom

After buffing out the roof, next move to either the hood or the trunk lid. Once you've completed all the horizontal panels, next buff out the vertical panels followed by any painted areas at the front and rear of the vehicle.

STEP 6: Ceramic Coating Application

Like I mentioned before, a huge advantage with Nano Surface Primers is that you don't need to chemically strip the paint of organic oils and fillers with a panel wipe before applying a ceramic coating. The other big benefit is the anchor point-primed ceramic coating foundation they apply to the paint while correcting.

These two features make ceramic coating application much more efficient AND effective. It increases the speed with which you can move from the paintwork correction to the ceramic coating because there's no panel wipe step in between.

It also makes applying the coating itself faster because of the primed surface — you'll find ceramic coatings much easier to work with on a surface corrected with NSPs.

The increased effectiveness comes from the fact that you're basically ensuring a durable bond between the ceramic coating and the paint. With no organic fillers to remove, you're getting the cleanest possible surface for the coating to bond with, and therefore the most durable possible bond.



That means your coatings are almost guaranteed to exhibit the "as-advertised" performance when you use Nano Surface Primers.

For the purposes of this guide, we'll give a brief overview on how to use one of our most popular multi-step ceramic coating systems: Dr. Beasley's Nano-Resin MX.

Nano-Resin MX is a professional grade ceramic coating that can be warrantied for 7 years when applied by a Dr. Beasley's Authorized Detailer. It's easy to apply and creates a silky feeling, hydrophobic surface with self-cleaning properties. Nano-Resin MX also creates a super high gloss, high shine finish.



Step-by-Step Instructions for Nano-Resin MX

This is a two component ceramic coating. The first component is the Paint Coating Builder. The Paint Coating Builder lays down a layer of ceramic protection while enhancing gloss and shine. The second component is the Nano-Resin MX.

The Nano-Resin MX bonds to the Paint Coating Builder to create a strong, durable layer of ceramic protection while maximizing gloss, shine, and hydrophobicity.

1. Start by misting a light spray of Paint Coating Builder onto the gray side of the included microfiber foam block.

This preps this side of the microfiber block to make application of the Paint Coating Builder faster and easier while laying down a uniform layer.



2. Next, spray a light mist of the Paint Coating Builder onto a panel or small area.

Using the microfiber foam block applicator, spread the Paint Coating Builder in vertical overlapping lines over the panel, followed by horizontal overlapping lines.

3. Let sit for 2-3 minutes, then remove with a microfiber towel. Repeat steps 3-4 until all desired paint surfaces are coated.

4. Using the included plastic pipette, apply a few drops of the Nano-Resin MX to the red side of the microfiber foam applicator block included with the kit.



5. Repeat the same application process used to apply the Paint Coating Builder. Start by applying Nano-Resin MX in vertical lines over the panel. After you've covered your panel with vertical lines, go back and repeat with horizontal lines. This crosshatching will ensure full coverage. Avoid getting the product in panel gaps.

6. Let the product sit on the surface for 30 seconds to a minute. Wipe panel with a clean, dry, microfiber towel.

7. Repeat steps 5-6 on each panel until your entire vehicle is protected. Reapply several drops of Nano-Resin MX to your applicator every few panels or as needed.

8. Allow coating to cure undisturbed for one hour. After, if product is left over, re-apply to high impact areas.





CONCLUDING THOUGHTS

This is by no means an exhaustive guide to Nano Surface Primers and paintwork correction. There's so much more that I've written that was left out simply because it was too much information for the purposes of this ebook! Thankfully I've got plans to release a new ebook in the coming months that integrates more in-depth information on everything from polishing technique to prep washing to wheel and tire detailing.

I'll be the first to admit Nano Surface Primers are far different than anything you've used in the past and they definitely have a learning curve. The thing is, once you master them, they unlock a level of efficiency, effectiveness and quality of results that I haven't found anywhere else in the paint correction world.

I may sound biased considering I work for Dr. Beasley's as their Chief Education Officer, but keep in mind that I was a fan of Dr. Beasley's products for years before joining the team. I used their stuff constantly on special projects I've worked on.

Dr. Beasley's products are all professional grade and made right here in America. Dr. Beasley's is a vertically integrated manufacturer, which means all aspects of a product are made in-house, from creating the formula to the final product you can hold in your hand.

In a world of me-too products and so much relabeling that you don't even know what's in the bottle or where it was actually manufactured, you can trust the Dr. Beasley's brand to be authentic to the founder and head chemist Jim Lafeber's passion for creating unique products that meet and exceed your expectations.

If you ever have any questions about Dr. Beasley's products or need specific help with your detailing project, please feel free to reach out as I'm always here to help you.

Sincerely,

Mike Phillips
Chief Education Officer
Dr. Beasley's, Inc.
Mike@DrBeasleys.com
Cell: (760) 515-0444

ABOUT THE AUTHOR



Mike Phillips is a world-renowned detailing professional, instructor, author and television personality with over 30+ years of detailing experience working for companies like Meguiar's. He is now the Chief Education Officer for Dr. Beasley's.

Published Author

Mike Phillips is also the author of over 6 published how-to books including *The Art of Detailing*, *The Complete Guide to a Show Car Shine*, *How to use the RUPES BigFoot Paint Polishing System*, *How to use the FLEX XC 3401 VRG Dual Action Orbital Polisher*, *How to Detail Boats*, and his first published book, *How to Polish Paint, Fiberglass, Plastic and Glass to Perfection by Hand or Machine*. Mike is also the author of over 1000 car and boat detailing how-to articles.

TV Personality

Mike has been the host of two TV shows, *Competition Ready* and *What's in Autogeek's Garage*. Mike has also been the guest expert on multiple TV shows including, *My Classic Car* with Dennis Gage, *Chasing Classic Cars* with Wayne Carini, *Two Guys Garage*, *Truck U* with Bruno Massel and Matt Steele, *Motorhead Garage* with Sam Memmolo and Dave Bowman and *Ship Shape TV* with John Greviskis.



© 2023 Dr. Beasley's, Inc.