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ASPHALT / CONCRETE / PAVEMENT COATINGS

A GUIDE TO

PAVEMENT SEAL COATING METHODS AND MATERIAL SELECTION FOR YOUR PROJECT

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If you're in the process of considering multiple proposals for parking lot sealcoating and feeling overwhelmed by the options and recommendations available, you're not alone. The world of pavement maintenance can be complex and, unfortunately, not all service providers have your best interests at heart. We are obsessed with helping to educate our prospective customers or just anyone is curious to learn more. Our guide is designed with you in mind, aiming to demystify the sealcoating process and the various application methods available. We understand the importance of making an informed decision—one that ensures your investment is protected, your parking lot is well-maintained, and you're not regretting your choice due to the work of unscrupulous contractors. Read on with confidence, knowing that our primary goal is to educate and empower you to make the best possible decision for your parking lot sealcoating needs.

Pavement sealcoating is a crucial maintenance procedure that many property owners misunderstand, leading to dissatisfaction with the services received. This misunderstanding largely stems from a lack of knowledge about the process and unrealistic expectations about the results of sealcoating. Moreover, the industry is riddled with fly-by-night contractors who exploit this gap in understanding, offering substandard workmanship that fails to meet the needs and expectations of their clients.

At its core, sealcoating is designed to protect and extend the life of asphalt pavements by providing a protective layer against the elements, such as water, oils, and UV damage. However, many purchasers of this service expect it to repair existing damages or significantly extend the pavement's life beyond its capability. This fundamental misunderstanding of the service's purpose sets the stage for dissatisfaction from the outset.

Resists gas and oils which soften, weaken and destroy asphalt pavement.

Seals against moisture accumulations in blacktop which can severely damage pavements under the "freeze-thaw" cycle.

Shields against the drying action of the sun which causes ravelling and cracking of the pavement and allows water penetration.

Beautifies asphalt pavements by providing a charcoal black color which gives the pavement a rich, new-look appearance.

BUYER BEWARE!

The situation is further exacerbated by the presence of numerous unscrupulous contractors in the NJ/PA/DE/NY/MD market. These fly-bynight operations often use inferior materials or improper application techniques, leading to a finished product that falls short of the client's expectations. Without proper due diligence in selecting a reputable contractor, property owners are at risk of receiving a sealcoating job that not only fails to protect their investment but may also necessitate costly repairs or reapplications much sooner than anticipated. This combination of misplaced expectations and the prevalence of low-quality service providers creates a breeding ground for dissatisfaction among consumers who pay for pavement sealcoating, emphasizing the need for greater education and awareness in this area.

This picture to the left is an example of the poor workmanship often completed by fly-by-night or unskilled seal coating contractors

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UNDERSTANDING THE TYPES OF SEAL COATING APPLICATIONS & MATERIALS: A GUIDE TO PROTECTING YOUR PAVEMENT

Seal coating is a protective layer applied to asphalt pavements to extend their life and improve appearance. However, not all seal coating applications are created equal. The method of application can significantly affect the durability, cost, and effectiveness of the seal coat. Here, we'll explore the different types of seal coating applications, including 1 coat spray application, 2 coat spray application, 1st coat squeegee/2nd coat spray, and broom application, to help you make an informed decision for your pavement maintenance needs.

SPRAY APPLICATION - (1 COAT)

"The industry norm being proposed to 80% of seal coating projects in NJ/PA/DE/MD." Even most contractors who may specify they are applying "2-coats" in their proposal are only applying "1-coat" that is very light (fog coating) or telling you they can apply the equivalent of "2-coats" of sealer in "1" application (any manufacturers application bulletin clearly states, "1 heavy spray coat" is not recommended".

The 1 coat spray application is a common method where a single layer of sealant is sprayed over the pavement. This technique is fast and cost-effective, making it a popular choice for seal coating contractors. The spray method ensures a uniform coat over the surface (for very old or porous asphalt some areas may get missed), providing a basic level of protection and a refreshed look. However, because it's only a single layer, it will not be as durable or long-lasting as other methods, especially in high-traffic areas.

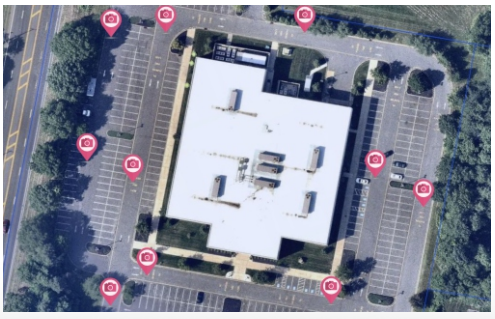
PROS	CONS
Customer- lower cost per sq ft (sometimes)	Does not last long term on high traffic
Contractor- higher profit (less labor & materials)	Purely cosmetic- will not extend the life of your asphalt
Effective for adding low-cost immediate curb appeal if you are planning on paving within 18 months, looking to sell the property or make a vacant property more aaractive to lease	If used for curb appeal but you don't pave within 18 months the area will need to be re-coated again
Area can be striped and opened to traffic sooner. Because it's not warrantied a contractor may allow you to open the parking lot to traffic in under 4 hours.	Some contractors charge the same cost or just slightly less for a 1 coat application as they do for a 2 coat application. It's a "win-win" for the seal coating contractor and a "lose-lose" for the client.

SPRAY APPLICATION- (2 COATS):

This application is where a 2nd "separate coat" of sealer is applied after the 1st coat has had time to dry.

A step up from the single spray coat, the 2 coat spray application involves two layers of sealant, each applied after the previous one has dried. This method offers enhanced durability and protection against water penetration, UV rays, and chemical spills. The additional layer reinforces the sealant's effectiveness, making it suitable for areas subjected to moderate to heavy traffic. While more time consuming and costly than the 1 coat spray, the improved longevity and protection can make it a worthwhile investment.

PROS	CONS
Longevity and better value	Cost (more expensive than a 1 coat application. If you are presenting to a client, owner, board, if they do not understand the benefit of the 2nd coat it may be difficult to get them to see the price difference in terms of value.
3–5-year service life depending on traffic & use	Longer cure time. A contractor who is going to warranty the application will want the parking lot closed for 24 hours
Will extend the life of your asphalt (as long as it's in a serviceable condition and a 5-10 on the PASER Scale	
Requires less recoating and will look newer longer	
Can be used as part of a Preventative Maintenance Plan	



2nd Coat Verification (IMPORTANT):

Make sure the seal coating contractor agrees to send 1 picture of individual sections per 10,000 sq ft to prove they applied a second separate coat of sealer. Make this a requirement for final payment.

HOW MUCH LONGER DOES A 2-COAT APPLICATION LAST VS. 1-COAT APPLICATION:

CASE STUDY:

MAY 2015

MAY 2021

This is a seal coating project we completed a case study on in 2015 to show the 3 -year wear difference between 1 and 2 coats of pavement sealer. We visited the project once again in 2021 to show the difference 9 years later. The results clearly demonstrate the life expectancy of a 2-coat application far exceeds a 1-coat application.

1ST COAT SQUEEGEE / 2ND COAT SPRAY APPLICATION- (2 COATS):

Combining squeegee and spray techniques, this method applies the first coat with a squeegee to fill in cracks and ensure a thorough, even application. The second coat is then sprayed on, providing a smooth, finished look.
This combination offers the benefits of deep penetration and sealing provided by the squeegee, with the uniform coverage of the spray. It's particularly effective for high traffic surfaces with irregularities, offering a balance between durability and aesthetics.

PROS	CONS
Longevity and better value. This application has been recognized as the most durable in the USA. This was the “standard” in the 1980’s until the industry became flooded with fly by night companies who recognized the profit potential of quick “1 fog coat” spray applications.	Cost more expensive than a 1 coat application. If you are presenting to a client, owner, board, if they do not understand the benefit of the 2nd coat it may be difficult to get them to see the price difference in terms of value. This is an “investment grade” application.
4–5+ year service life depending on traffic & use	Longer cure time. A contractor who is going to warranty the application will want the parking lot closed for 24 hours
Will extend the life of your asphalt (as long as it’s in a serviceable condition and a 5-10 on the PASER Scale	Slower process
Requires less recoating and will look newer longer	Can take double the material because of a reduced yield. Some contractors who apply by squeegee will give a gallon’s allowance and charge per gallon over that allowance. For this reason its not ideal for all applications as it can be cost prohibitive if the asphalt is to porous and rough
Can be used as part of a Preventative Maintenance Plan	Due to its investment cost- less than 10% of seal coating contractors in the USA own this specialized equipment. **We own (2) two of these machines.**

BROOM APPLICATION- (2 COATS):

This application is where a 2nd “separate coat” of sealer is applied to High traffic areas (entrance / exit / turning lanes)

The broom application method is labor-intensive but provides the most comprehensive coverage. The sealant is applied with a broom, allowing for precise control over the application, ensuring that the material fills in cracks and potholes effectively. This method is ideal for small – midsized parking lots and residential driveways, as it allows for detailed attention to the pavement's needs. While it may be more time-consuming and more expensive due to labor costs, the enhanced control and effectiveness in coating surface imperfections make it a valuable option for many property owners.

Unlike traditional pavement sealer broom sold by seal coating material manufacturers- our brooms are custom manufactured for us since 2001 and are designed to the founder (Steven Brahney’s) exact specifications. Steven has been using these specialized nylon brooms since 1993. Other seal coating brooms sold by suppliers are too rigid and pull too much material off the asphalt surface. We have seal coating projects that have lasted over 10 years with application by these specialized brooms.

On high traffic parking lots we apply a second spray coat to the entrance / exists / turning lanes and drive lanes of the front parking stalls.

CASE STUDY:

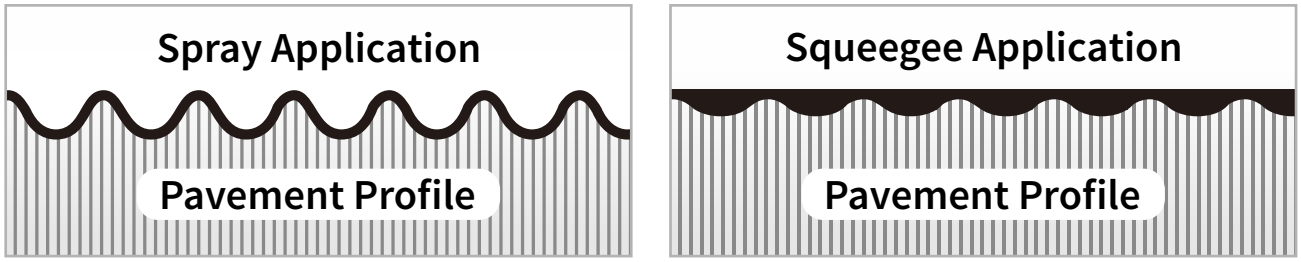
7-Year Performance Review Of Broom Application On High Traffic Small Box Retail Store (Maryland)

2012

2019

PROS	CONS
Longevity and better value	Cost (more expensive than a 1 coat application. If you are presenting to a client, owner, board, if they do not understand the benefit of the 2nd coat it may be difficult to get them to see the price difference in terms of value.
3–5-year service life depending on traffic & use. Service life as long as 10 years on documented projects	Longer cure time. A contractor who is going to warranty the application will want the parking lot closed for 24 hours
Will extend the life of your asphalt (as long as it's in a serviceable condition and a 5-10 on the PASER Scale	Slower process
Requires less recoating and will look newer longer	Availability- FixAsphalt.com and its approved contracting partners are the only contractors with access to these specialized brooms for application
Can be used as part of a Preventative Maintenance Plan	

THE ILLUSTRATION BELOW SHOWS HOW PAVEMENT SEALERS COVER DIFFERENT ASPHALT PROFILES



Preparation Procedures (IMPORTANT):

Barricading, caution taping for work area protection, traffic control and detour signage

Cleaning the asphalt thoroughly using 27 HP blowers & powered steel wire brooms to remove all debris. Pavement sealer will only adhere to clean asphalt.

Applying a primer to any oil, gas or grease stains (this services is not guaranteed as when chemicals penetrate asphalt they will soften the surface and the sealer may not bond even after priming)

SERVICES THAT MAY BE LISTED AS AN OPTIONAL ITEM ON YOUR SEAL COATING PROPOSAL:

If you see **"Pavement Priming"** listed as an option on your proposal, it is recommended for one of the following reasons:

- The asphalt is oxidized from the sun (gray in color)
- You have polished aggregate (ie: smooth asphalt).
- This can cause bonding issues for pavement sealer
- The area is very high traffic and the primer will help the sealer perform better
- The area is oily or dirty

If you see **"Optional 3rd Coat"** listed as an option on your proposal it is an option to apply a third coat of sealer by spray application to your high traffic areas such as entrance / exits / front drive lanes / turn lanes. The option will specify what sections of the parking lot will receive the 3rd coat.

UNDERSTANDING PAVEMENT SEALER:

The project above is an example of why property managers / owners have issues with seal coating contractors. The material is extremely thin (this is an example of a “fog” coating- 1 light coat of over diluted sealer sprayed onto the asphalt), the area was not cleaned properly, and the asphalt is beyond seal coating and requires paving- yet this seal coating contractor told the customer the parking lot would look brand new when they were finished, and the cracks would be sealed. To add insult to injury- the customer gave the contractor a 50% deposit and when they voiced their concerns, he just left the project after only completing 1/4 of the parking lot but with 50% of their money.

Here is the project ¼ complete 3 months after they walked off the job with the client’s money.

WHY MOST SEAL COATING PROJECTS FAIL?

This is a 3-week-old seal coating project where the pavement sealer is quickly wearing off the asphalt. Its apparent from the pictures how thin the pavement sealer is and appears to be a single fog coat.

- **50% of the time the pavement sealer is not mixed and applied properly** (overdiluted with water, does not contain sand, does not contain latex, is not applied to the manufacturers application rate)
- **50% of the time the company lacks the skill set** to properly apply the pavement sealer due to improper training, lack of knowledge and improper equipment.

WHAT TYPE OF PAVEMENT SEALERS ARE AVAILABLE?

Coal Tar Emulsion:

Coal tar emulsion is a type of sealant used primarily for the protection and preservation of asphalt pavements.
It is derived from the distillation of coal tar, a byproduct of the production of coke from coal. Coal tar emulsion is known for its ability to protect asphalt from the damaging effects of water penetration, UV radiation, weather, and chemicals like gasoline and oils, which are common on roadways and parking areas.
The emulsion itself is a mixture of coal tar, water, and emulsifiers. The water and emulsifiers make the coal tar easier to apply and allow for a more uniform coating over the asphalt surface. Once applied, the water in the emulsion evaporates, leaving behind a dense, tough film that seals the asphalt.
Coal tar emulsion is favored for its longevity and durability. It's quite resistant to many forms of environmental wear and tear, which makes it a popular choice for many large-scale, commercial, or municipal sealing projects.
However, due to environmental and health concerns over its PAH (polycyclic aromatic hydrocarbon) content, some regions have restrictions or bans on the use of coal tar-based sealants. Alternatives like asphalt emulsion sealants, which are considered more environmentally friendly, are used in these cases. Coal Tar Emulsion is currently banned in most of New York, Maryland & Washington DC

Asphalt Emulsion:

Asphalt emulsion pavement sealer is a protective coating made from an emulsified mixture of asphalt cement, water, and an emulsifying agent. It is applied over asphalt pavements to seal the surface from water penetration, UV rays, and oxidation, all of which can lead to deterioration of the asphalt.

The emulsion technology allows the water and asphalt to mix, creating a liquid product that can be applied in a even coat. When the emulsion is applied to the pavement, the water component evaporates, leaving behind a solid layer of asphalt which bonds to the surface, sealing and protecting the underlying material.

This type of sealer is environmentally friendlier compared to coal tar emulsion sealers because it contains lower levels of PAHs (polycyclic aromatic hydrocarbons), which are potentially harmful to human health and the environment. Asphalt emulsions also typically produce fewer odors during application.

Asphalt emulsion sealers can be fortified with additives to enhance performance characteristics such as flexibility, durability, and resistance to contaminants. They are oDen preferred for residential and commercial projects where lower VOC (volatile organic compound) emissions are desired or required by law.

In addition, there are also pavement sealer's that are made up of acrylic based pavement sealer, rejuvenators (both bio-based & solvent based), and Gilsonite based sealers. Gilsonite is illegal to apply in New York and New Jersey due to it's high VOC content. The previously detailed application methods cannot apply these types of sealers as each one is designed for a specific type of asphalt, asphalt condition and life cycle.

Mix Design

Concentrated pavement sealer is designed to be mixed with certain ratios of water, sand, and latex. Most pavement seal coating companies simply just add concentrate sealer to their tanks and over dilute it with water. Over dilution of anything, reduces its performance, whether it's food or coatings for asphalt. Failure to follow the manufacturers recommended mix design an application rate will result in a pavement coding that will quickly wear off the asphalt. 90% of seal coating contractors are just mixing concentrate sealer with water and spraying it onto your pavement.

How unscrupulous seal coating contractors double their profit.

A PROPER MIX DESIGN INCLUDES

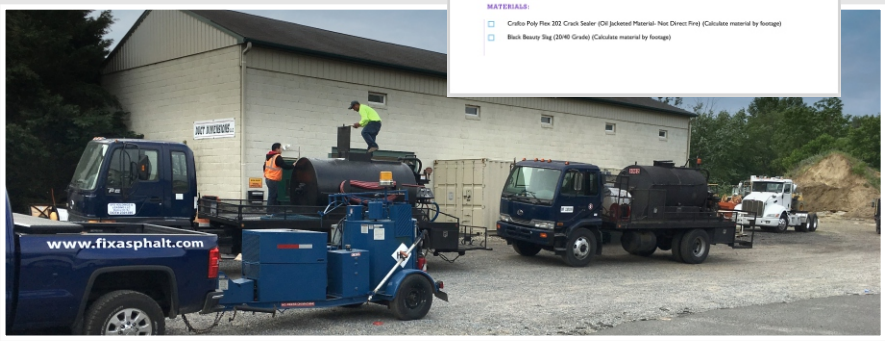
Our pavement sealer is purchased in bulk directly from the pavement sealer manufacturer. We DO NOT purchase sealer from re-sellers. We have several mix designs we utilize depending on several factors such as the age of the asphalt, traffic volume, condition and which state the property is located (ie: both NY and MD have banned the use of coal tar emulsion sealers).
No matter which pavement sealer we use (ie: coal tar pitch emulsion or asphalt emulsion) we mix the proper proportions of water, sand, and latex to modify the sealer for performance and longevity.

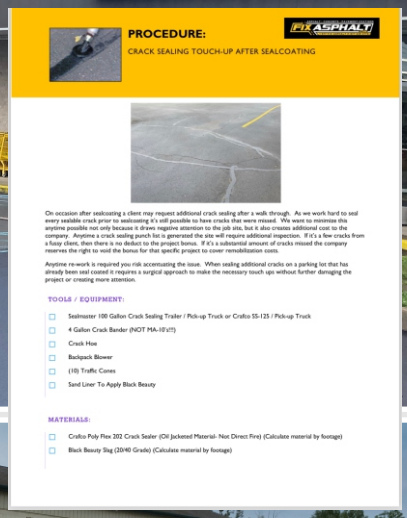
SKILL SET, TRAINING & APPLICATION EQUIPMENT:

Are they even properly equipped to complete the job professionally.
The equipment above lacks the proper mixing equipment to properly mix and apply the pavement sealer?

Contractors (such as the examples above) who lack skilled craftsmen and the proper equipment to apply pavement sealer will result in an application that will not last long term.

OUR EQUIPMENT, SKILLED APPLICATION TEAM AND TRAINING:





This is our many pieces of professional equipment we have in our fleet along with skilled craftsmen and our 50+ pages of training docs to produce a professional project each 5me. We aren't perfect (we make mistakes as well-, but we are dialed in 98% of the time). This is the reason the largest retailers and Fortune 100-500 Companies in the USA utilize our services in 5 states.

CONCLUSION

Choosing the right seal coating application method depends on several factors, including the size of the area, the current condition of the pavement, traffic levels, and budget constraints. Each method has its advantages and considerations, from the quick and cost-effective 1 coat spray application to the detailed and durable broom application.
By understanding the differences between these application methods, property owners can select the best approach to protect and prolong the life of their asphalt pavements, ensuring a beautiful, safe, and functional surface for years to come.

Recognizing the difference between a professional parking lot sealcoating company and a fly-by-night scam operation is crucial for property owners/managers seeking to protect and enhance the longevity of their asphalt surfaces. Our company brings a wealth of experience, knowledge, and the right equipment to ensure that the job is done correctly, using high-quality materials that will withstand the test of time. We understand the specific needs of a parking lot, including proper surface preparation, application techniques, and the appropriate type of sealcoat for the climate and usage of the lot. We also offer warranties on our work, providing peace of mind and assurance of quality.

On the other hand, fly-by-night operations often lure customers with significantly lower prices, but this cost saving comes at a high price. These operations typically use inferior materials, skimp on surface preparation, and rarely apply the sealcoat properly, leading to a finish that wears off quickly, offers liale protection, and ultimately costs more in the long run due to the need for frequent repairs or reapplication. They often lack proper licensing, insurance, and may not adhere to local regulations or environmental standards, putting property owners at risk of liability. Most pay their employees under the table, so the few that do carry the minimum workman's compensation insurance; their employees are not covered because they are not on payroll. By choosing a reputable and professional sealcoating company, property owners can avoid the pitfalls of engaging with scam artists and ensure that their investment in their parking lot is protected, enhancing its appearance, safety, and longevity.