

The Superior Services Way!

Fence & Deck Care, Guide!

I was asked about preserving a Deck by a customer recently, (it is that time of year) and very quickly came to the conclusion that this is a good subject for an in depth article. The following, actually ended up as a definitive guide for how to maintain your Fence and Deck, and “why” you need to. The words Deck and Fence are used interchangeably to refer to any structure built with Pressure Treated, exterior grade lumber. While a lot of this application may be in common with the procedures for Log Cabin maintenance, they are really 2 different animals and we have a different set of procedures, that are specific for Log Cabins, that should be adhered to when maintaining those structures.

What is Pressure Treated Wood?

Pressure treated wood, is lumber that has been placed inside a sealed chamber and then using a combination, of an extremely high amount of pressure, and vacuum, forces chemicals into the lumber, treating it. Wood used in differing final applications receive varying degrees of product penetration into the wood. Depending on the lumber usage designation, the lumber’s size, and it’s hardness as measured on the Janka scale, penetration may be to the core, and for other uses it is only a ¼ inch. The **International Residential Building Codes Guide** requires all exterior wood structures to be treated for Insects, Termites, Fungi, and, Rot, if the wood does not have a certain, measurable, natural resistance to them. Treating wood gives it a 20 to 25 year life span. We, at Superior Services, think 20 years is the absolute minimum you should get out of your Pressure Treated Wood Fence. In fact 25 to 30 is not unreasonable at all.

The three types of Preservative are:

Waterborne: used for residential applications - think decks and fences.

Cresote: used in commercial/industrial/marine applications - railroad ties, guardrails, pier pilings and other marine uses.

Oil-borne: used for commercial/industrial applications - utility poles and cross arms.

Prior to 2003 “Chromated Copper Arsenic” – CCA, (an extremely toxic chemical to humans and animals), was used in all residential applications for treating exterior grade wood products. Since 2003, The United States, through the Environmental Protection Agency (EPA) has switched to using the following products for residential applications (water based):

Amine Copper Quat (ACQ): aka “Preserve”, and “Nature Wood - Osmose”

Micronized Copper Quat (MCQ): aka “Micro Pro - Osmose”, and “Smartsense - Osmose”

Copper Azone (CA): aka “Preserve”, “Nature Wood- Osmose”, and “Wolmanized Natural Select”

Sodium Borate: aka “Advance Guard- Osmose” “Hi Bor - Osmose”

and other much less hazardous materials for treating lumber. CCA is still authorized for use in some industrial and marine applications. So, if your Deck was built prior to 2003, should you tear it down, due to the fact it may have a very toxic element on and in it? The EPA says no. Their studies show the proper application of an “oil based” sealer can reduce or eliminate human and environmental exposure to CCA in older Decks and also the newer chemicals in new structures. Sealing also reduces or eliminates leaching of the chemicals into the air or ground. The newer pressure treated chemicals react with or precipitate (become insoluble) in the wood substrate, thus becoming fixed inside the wood and resistant to leaching.

Pressure treated lumber comes in a variety of chemical retention levels, expressed as “Pounds of Preservative - per cubic ft (PCF) of wood. This is important as pertains to level of chemical in the board, as per the application, or usage of that particular piece of lumber. “Wood Posts” rated for ground contact has to have an increased level of protection versus “Wood Framing” that will be in the air. Here at

Superior Services we've developed charts we use when designing our decks as to what level of treatments are required for what applications, and lumber is purchased accordingly. We don't just go down to the The Home Depot and pick up a load of lumber - LOL!!! The joist lumber you would use to frame a deck within 2' of the ground, or on the ground, must have an increased level of protection than do the joists that are 10' in the air. On a side note, all of your Deck fasteners, and connectors must be matched to the level and type of preservative you are using, as the pretreating material can be very corrosive to the wrong metals, this is very important for the life span of the structure, and your safety. Inspect underneath your deck every spring and fall.

The 2 species most commonly used in the Pressure Treating process are Southern Yellow Pine and Douglas Fir. Southern Yellow Pine is what is found in great abundance in the southern U.S., and that's good for us. There are 2 types of wood in any tree, "Heartwood" and "Sapwood". Heartwood provides most of the structural strength and Sapwood transports the Sap up from the roots to the leaves. The chemicals and techniques used in pressure treating, penetrate the Sapwood easier than the Heartwood. As a result, and lucky for us, wood such as Southern Pine have a very high percentage of Sapwood and are predominately used in pressure treating. Douglas Fir, found in Washington, Oregon, and up into British Columbia, the same area as the Western Red Cedar is found in, has a little more Heartwood than the Southern Pine and incising (the process of cutting small slits into the wood) the wood is often done in order for the wood to accept the pressure treatment better. Douglas Fir forests, produces more lumber than any other species in North America. Pressure Treated Lumber lasts longer than Redwood, Western Red Cedar, untreated Douglas Fir or Spruce. Coastal Cypress is approximately equal in lifespan to pressure treated, and the South American hardwoods such as IPE (Brazilian Walnut) are the only ones that will outlast PT lumber. When building a Fence in this area it is acceptable to use any of the above materials for the pickets but we strongly recommend Pressure Treated lumber for the post and framing members. Same with decks made using Synthetic decking, Hardwood decking, or Cedar decking, - the post, beam, joists and other framing members underneath, are all made out of Pressure Treated material. (All pressure treated lumber is hidden underneath the surface on a synthetic/composite deck). Obviously, do not use Pressure Treated wood for any raised garden beds or vegetable planters of any type.

Characteristics of the Deck and Fencing Wood We Use:

Superior Services ([Fence Page Website -Link](#)) use several types of lumber that does not require Pressure Treating. Coastal Cypress, Western Red Cedar, and IPE (*AKA Brazilian Walnut - it is the best natural wood fence available anywhere*) are the main ones for Fences. For our Decking, along with PT, we install Western Red Cedar Deck boards, and then it's the Exotic Hardwoods from South America, IPE, Cumaru, Garapa, Jatoba, and my favorite, Tiger wood. These are for the "High End" or Premium Decking material market.

Southern Pressure Treated Yellow Pine, has a tendency to check, warp and crack, if left untreated. It is a soft, porous wood and absorbs and releases moisture easily. Sealing/staining is required to keep this to a minimum. It has a fair amount of large knots, so always use the top grade. Fairly high amount of board shrinkage, due to saturation during the Pressure Treating process. The bottom edge of the Fence boards (The cut end grain) should always be sealed with a premium edge grain sealer prior to the Fence installation. Same thing when building a deck. Use the best grade lumber and make sure you hire a professional company that does this. When using pressure treated Deck boards always install them side by side, leaving no gap between them. As they dry out they will develop the proper gap.

Western Red Cedar is a very stable wood. It is very lightweight, and has a lot of knots but they are mostly tight knots which is fine. It has minimal shrinkage and is good for Fence pickets and Deck board use. Although it is susceptible to rot, and due to this rot factor it has to be installed at least 2" inches off the ground. Take this into account if you have small pets, or pets that want to dig. We do not recommend the use of Cedar "Posts" for residential Fencing as they will rot too soon in concrete. If you do use the Cedar posts, they "should not" be installed using concrete, to set the posts. They should be "tamped in" only. Concrete will only accelerate the process of the posts rotting. Privacy Fences, due to wind shear, need the weight support and secure footing of concrete. Rail Fences are fine if Red Cedar is your choice. Not so much wind shear and tamping in is fine.

Coastal Cypress wood (our favorite) has a natural preservative called cypressine oil. It is a very

stable wood because of its few knots and solid, tight wood grain. Cypress is more resistant to Fungal growth, and insects than the Western Red Cedar, and does not rot - ever. It is a stable wood that resists splitting, warping, and cracking fairly well. Minimal shrinkage. Can be left to weather to a light gray patina.

Over all, both Coastal Cypress and Western Red Cedar will only warp and degrade very minimally, to a much smaller degree than PT if the PT is left unsealed, but to get the best service life of all of these wood types, over a longer period of time, we recommend they also be kept sealed. While Pressure Treated has to be allowed to dry out prior to staining, Western Red Cedar and Coastal Cypress can be stained immediately. PT should be sealed as soon as it is dry to prevent any further degradation. Normally within 30 days, depending on the time of year it is installed. If say it is installed in December or thru the winter months, obviously you can wait for March or April to pressure wash and seal.

We seldom install the Eastern White Cedar found in Home Depot, Lowes, and other venues, at least not for Fences or Decks, but it is basically the same as its Red cousin. As for the wood itself, all the characteristics are the same, it is not normally found in as great of quantities as the red and is not so commercially available, but if you get it, and especially if you get it cheaper than the western version, by all means use it.

Some of the South American hardwoods do not have to be sealed, except for the reason of appearance, to maintain that beautiful natural color. Some should always be sealed. Give us a call and we can discuss the specific hardwood species, you are interested in.

Why do I need to preserve or seal my Fence or Deck, it's already been Pressure Treated?

First of all let's get the terminology down correctly. What you are doing in order to preserve your structure is - sealing it. This may be done using a clear sealer or a pigmented stain, - both are sealing the wood, but when a pigmented stain is used most people call it staining, but this seals the wood also. Your Fence has already been pretreated using a high pressure technique that drives liquid chemicals containing insect repellent (Pesticides), and Preservatives against Rot, and Fungi into the wood. Pressure Treated does not mean sealed. Some people, mistakenly think that a Fence that has been Pressure Treated, is good to go. Not so. Wood contracts and expands as it absorbs and releases moisture daily. This can be from heavy rain precipitation, the morning dew, or even the moisture content of the atmosphere. Sealing wood stops or greatly slows this process down. Over a period of time, both, Southern Pine and Douglas Fir are notorious for cracking, splitting, and warping due to its reaction with the weather elements if left unprotected. This is due to being mostly sap wood, and very porous. The same reasons that make it great for pressure treating also make it susceptible to warping, cracking, and splitting if it is not sealed. Wood Fences, if left totally unsealed will last about 10 to 15 years, depending on how long a homeowner can stand to see it. Wood Fences taken care of will last about 20 to 25 years and look good while doing it. Maintaining your Fence is a must, to get your money's worth.

There's a myth that pressure treated lumber needs to weather for several months prior to being sealed. This is untrue, and leaves the structure vulnerable to damage. New pressure treated lumber should be allowed to dry for at least 2 weeks to 30 days (weather dependant) before being sealed. Western Red Cedar, and Coastal Cypress can be sealed immediately upon installation. Kiln Dried Pressure Treated should also be sealed immediately upon installation.

When building your Deck, or Fence, your builder should have applied Copper Napthenate or a comparable solution, to the ends of any lumber he had to cut, so as to preserve them. ([Deck building link](#)) Copper Napthenate is a wood preservative that you can apply by brush to the fresh cut ends of boards and is specifically designed for "after market use" on the jobsite. It does the same thing as the Pressure treated version, except you cannot force it into the wood using pressure. Hopefully you had a good quality Deck builder, that did this. If he didn't, then those parts of your structure will deteriorate faster than others and before they should. End grains are well known for absorbing moisture and releasing moisture, far more so, than the length of the board does. This is where Decks normally will start to fail first - the ends of boards, at the structures corners, and at any connections or joints, on the framing, decking, or railing. Also any points where connectors such as nails, bolts and screws have penetrated the wood surface. When getting your Wood Fence sealed, ensure the person applying the sealant, seals the end grains on the top of

the boards. This is very important, and often missed. When we build a new fence the first thing we do at Superior Services when receiving a pallet of Fence pickets is to seal the bottom of the pickets. Some, such as Cypress already come “waxed” on the tops and bottoms. Others such as Western Red Cedar can really wick up the moisture and it is very important that this be completed at this point. Prior to installing them, we use a roller and apply the End grain sealer all over the picket end grain bottoms. The tops are to be completed when the fence is sealed/stained. We also use Copper Naphthenate on every piece of lumber that is cut, when building a deck.

What sealers or stains to apply.

There’s so many products on the market today and new ones coming online constantly, that it’s hard to keep up. Even for the professional. Fortunately we find the traditional leaders of the industry are still the best:

Wood Defender,
Sikkens Cetol,
Defy Hardwood stain,
Sherwin Williams,
Woodrich,
Flood,
Duckback,
Bher,
Valspar
Wolman,
Cuprinol,
TWP, Oil *****
Olympic,
IPE Oil, *****
Defy,
Armstrong Clark,
Perma Chink products,
Ready Seal,
Penofin,
Messmers, and
Super Deck

are some we use and recommend. The big box stores carry some of these along with their usual array of products. Others are marketed for contractor use only. ([Website: Deck Staining Page Link](#))

There are 2 basic choices when talking Stain:

1. Oil based products: Manufactured from petroleum.
 2. Water based products: Has a base carrier of Water.
- Both, of these choices come in Exterior and Interior grades for any application.

These are broken down into either:

1. Penetrating Stains: used for Wood products such as Fences, Decks, Cabinetry, & Desks.
2. Gel Stains (Film Forming): also called wiping stains, they are used for solid objects like Fiber Glass & Metal doors, and Concrete. Also a good choice when trying to match interior stains.

(If staining a Composite Deck, make sure the stain you choose is made specifically for this.

There are several available on the market.)

These types are further broken down into several – sub categories:

1. Translucent (Clear): Normally requires reapplying every year, or two.
2. Toner: Slightly pigmented. Lasts 1, or 2 years.

2. Semi Transparent: More Pigment, can still see the wood grain fairly well, 2 to 5 years.
3. Semi Solid: Lots of stain color, little wood grain showing, lasts 3 to 5 years on horizontal and 3 to 7 on a vertical surface.
4. Solid: No wood grain shows, solid color. Lasts around 4/6 years on a horizontal surface and 6/10 years on a vertical surface like a Fence.

(These lengths of time may be different for the various stain/sealer product lines. All manufactureres may not carry all the above designations or product lines.)

Basically the more pigment a stain has, the better the Ultra Violate Sun Rays (UV) protection, and therefore the longer it will last. Lighter stain colors last a bit longer, than darker colors. Even some translucent (clear) sealers have a very small amount of pigment in order to increase UV protection. When staining your Deck use a stain specifically formulated for Deck use. Decks, Fences, Barns, Log Cabins, and Siding are all very different items from a coatings point of view. Ensure your sealer or stain has a UV protector and a mildew retardant added to it. The better ones do. We strongly recommend using the top quality products. Additional mildew additives can be purchased and added to your sealer from the paint store of your choice, or the paint departments of the big box stores. We are not sure how much additional protection these additives provide, but when staining a fence or deck that is in a mostly shaded area, and therefore more suseptable to mold and mildew we figure they are worth it for the nominal price, to try and get a little more protection.

Part of having a Fence or Deck constructed of wood, is the beauty. We like to see the natural wood grain. We encourage customers to use a Clear sealer for the first few years. As they tire of this look, or the level of maintenance, you may switch to a Toner or a Semi-transparent to give a bit of color with some wood grain still showing. After a few years, the next step is to go solid. Although it depends on how often you want to maintain your structure, some people choose a solid color stain from day one, and that's fine. It's all about choices and each individual is different.

When applying solid pigmented stains on the horizontal portion of your Deck (Deck Boards), expect it to eventually peel. That's correct – expect it. Heavily Pigmented stains act more like film forming paints, than they do penetrating stains. They chemically bond to the surface of the wood rather than soak into the surface as the Transparent or Semi Transparent products do. Over time the sun's UV rays and expansion and contraction will create micro fractures and breakdown the stain and it will eventually peel. Traditionally, horizontal surfaces, made of any material, are the hardest to maintain over a long time period. Therefore we recommend that the deck boards always be completed with a clear, toner, or semi-transparent stain. The overhead, railing, and skirting can be clear, semi, or solid, as vertical surfaces, such as handrails or fences, will not peel the way horizontal surfaces do. Check out this link from Pressure Treated manufacture'rs that also recommend this methodology: [Adding Color to Pressure Treated Lumber!](#)

Water based stains are fine for PT Pine, Western Red Cedar, and Coastal Cypress. Oil is the only thing we recommend for the South American Hardwoods. Unfortunately we live in Indiana, and they have bascially outlawed "oil" based paint and stain products here. They must meet tight VOC standards which lowers the quality (Here is where I could go into a serious political rant but I will restrain myself) You can still buy them however, on the internet, or over the river, in Kentucky. There are many options that are fine for Pressure Treated Decks and Fences in water based stain, but for the "Exotic Hard Woods" such as IPE (Brazilian Walnut), Cumaru, Jatoba, Tiger Wood, and Garapa, oil based stains and sealers are a must.

Depending on the colors you choose, a 2 tone deck can really stand out. Choose one color for the rails and/or posts and another for the deck boards and underpinng.

If you have a Deck that is in a poor state of preservation, it is not the end of the world. There are many maintenance/repair options for your deck if it is peeling, so please give us a call, and we can discuss your specific item.

Remember this: On all wood structures, the longevity of the finish is directly related to the type and thoroughness of the preparation work that was completed.

Cleaning the Deck:

Use this step first if you have never sealed your Deck or Fence, or, you think your sealer or stain is really, really old, and will come off with just cleaning and pressure washing, and will not have to be stripped off. If your structure needs stripping then complete the stripping of the old stain, prior to this step.

Deck Cleaners are made to clean a deck, whether it has been sealed or not. However if you have a newer finish it may do a blotchy job. Older slightly pigmented sealers, and clear sealers will “sometimes” come off with a really good quality Deck Cleaner. If it is a newer pigmented stain, or has a buildup of more than one layer, it may require a complete stripping prior to applying a new finish. Some finishes say they can be applied over an old finish, so all you have to do is clean and then re apply. Be wary of doing this and read all product labels carefully if you try this. Most oil finishes can be re-applied with just a cleaning for 1 or maybe even 2, 3 or 4 times before stripping. When it comes to decks finished with 100% acrylic formula stains we prefer to go old school, and remove all the old product and then apply the new one. Deck cleaners can be used with scrub brushes or in conjunction with a Pressure Washer.

Lets clear up some confusion. To use or not to use the pressure washer? That is the question. Most people love it, and but a very few people hate it. They complain it fuzzes (is that a word) up their deck. The people that use just scrub brushes say the decks come just as clean without it, but the pressure washer guys say they don't. We use pressure washing and wouldn't use anything else. But you have to know a few things. If your item is totally in the sun then the odds are that it does not have very much mildew, stains, or mold on it. If this is the case then just using a cleaning agent and a scrub brush, and then rinsing with a standard water hose “may” work for you. But if your deck is older or a part of your Deck faces north, or maybe your deck is mostly in the shade, the odds are that it has mold & mildew on it. If it has not been maintained for a long time, that mold/mildew can be very, very stubborn, and require a lot of work. We mix our cleaning agent according to the label directions either in a small plastic (you must use a plastic container) garden variety sprayer and/or a plastic bucket with the Deck Cleaner solution mixed in and use a combo of the product application to the surface, then scrubbing, then allow the product to do it's job for a minutes, and then the Pressure Washing. Be sure to keep the surface wet with the cleaning agent during all this time. Scrub brushes with a extension pole work great for the scrubbing part as does a good corn broom. Never, ever, use house hold bleach (4% solution) or any product containing Hypo Chlorite (11% solution) which is basically a purer form of Bleach, on your Deck. It destroys the wood fibers and actually makes them less able to hold stain. Most of the products sold at the big box stores have a bleach solution included. Don't use them. Precautions taken for your landscaping plants include spraying them with lots water, this is so the plant can take up as much water as it needs prior to using any chemicals, or covering them with drop cloths, or plastic. Do not leave the plastic on too long in the summer on a hot sunny day or it will burn your plants. Pressure or Power washing is all about technique. Using a Pressure Washer with from 2000 to 2800 PSI is appropriate. It is more about using the correct nozzle, and the distance of the nozzle from the wood than the machine's pressure. Some of the newer machines have adjustable pressure. Usually 4” to 8 “ inches, from the nozzle to the surface is good. Maintaining the proper distance through every stroke of your movement is the key. If you do fuzz up a piece it can be removed by some light sanding with a couple different grits of sanding papers. It should take 2 to 3 passes to blast one 5/4 decking board. Ensure you are getting into the edges between boards, and overlapping your blasting pattern on each pass of the board. After we have completed Pressure Washing the deck, board by board, from one side all the way to the other, we go back over it in the opposite direction and blast the edges on this side. If doing the work yourself, follow all safety precautions when using pressure washers, they are dangerous, and will inject water and air under the skin, “ A life threating situation”. DO NOT wear flip flops as we see so many people do. There is another method of cleaning decks with chemicals, but we only recommend that method for Professionals only, and we will not discuss it here.

New Wood:

In the case of brand new wood fencing, or decking, it will still have to be pressure washed prior to applying any sealer. Just a really, really good powerful rinsing normally works great for fencing. It doesn't have to be quite as detailed, as it would be on an an older deteriorated wood surface. The reason is that

you have fresh new wood already, but it does have a lot of saw dust and dirt on it that needs rinsed off. We will apply a Wood Cleaner, Wood Prep, or Brightner agent (cleaners - mill glaze removers) letting it sit the required amount of time, and then agitate it using a straw broom or scrubbing brush, as we would on cleaning any deck or fence. Next we thoroughly rinse to get all the dirt, debris, and chemicals off of it, let dry for a day or maybe two, and then seal away. If the wood has any color change at all from the new wood look (graying or surface degradation) we recommend you pressure wash in a more detailed manner. The color change indicates the wood surface has been degraded by UV exposure and normal weathering. The reason for pressure washing is to remove all the dead surface fibers (graying) that will wear away easily and have a surface of bright new wood in good condition for the coating to attach to. This will help in receiving the maximum life of the product we apply.

Whereas wood Fence pickets are from "raw cut" lumber, the Fence posts, and Fence Framing, as well as Decking boards, and Deck framing structure have been milled, and have what is known as "Mill Glaze" or "Planer Crush". This is because it has been run through a planer to size the wood dimensionally. The Planing process closes the wood's pores up and serves as a barrier to the board's accepting the stain. It will therefore need the surface "roughed up" a bit in order to accept the stain better, and more evenly. (By "Roughed up" we do not mean any visual roughness) Pressure washing and the use of a deglazing agent is the fastest way to achieve this. So all Decks and Fences have to be cleaned and pressure washed prior to sealing, even when brand new. Some products for this job are Bher all in one wood cleaner, Bio Wash Stain Prep Mill Glaze Away, Penefin Pro Tech Brightener. Most wood Cleaning and wood Brightener agents will remove the mill glaze, but, as always, read the label to make sure the product is supposed to do what you are buying it for.

If your Deck needs Stripping:

The products you will need are a Deck Stripper, and a Deck Cleaner or Brightner-Neutralizer in order to bring the woods PH back to normal from the stripping, in order to accept the stain. They are used in that order, if stripping is required. Some companies have a separate Cleaner and then a brightener and some companies produce them as one combination type product. Do not strip and then stain, you will be sorely disappointed in your results. Try to make sure and buy these products all of the same family, as they are made to be used in conjunction with one another. Stripping a Deck can range from a very hard task, to a very easy one. Really old stains often are removed easily with a pressure washer and just the Deck cleaner. Always start using the products at the recommended solution mix with water - 1:1, 4:1, and so forth. If they are not working as you think they should, you may have to increase the strength of the mixture ratio, even up to full strength, for the tougher stains. The newer, waterborne, 100% Arcylic stains can be a real bear to get off. If they are still in fairly good condition it will take a fair bit of work. The older a stain is, the easier it will come off.

Follow all safety precautions when using any kind of Stripper. They can sometimes be caustic, to plants and other exterior house materials. Many products will burn your skin. If the directions say long sleeves and gloves, then use them. Most strippers are applied as a thick goo type of material. This is so they will not dry out so quickly and provides the effect of adding time to the workability of the product. On most occasions stripper will do the job on the first pass, however on stains in good condition it may have to be applied 2 to 4 times to do the job. Even on a deck that looks like it doesn't need stripping you may still find areas like underneath benches, or the side of the deck that doesn't get much direct sun light, or shaded areas will still require stripping when the rest of the structure doesn't. The hand rails and Skirting may have to be stripped even when the decking does not, as stain lasts longer on vertical surfaces than on horizontal surfaces. Stripper will normally turn a Deck, very dark. We like to paint our stripper on using a large paint brush, or sometimes we will pour our stripper into a plastic pail and apply it using a brush attached to a extension pole, or manhelper. As the stripper works you may have to use a wide blade putty knife to assist in the removal of the existing stain, especially the 100% solid acrylic stains. Keeping it wet for the appropriate time by applying more product and scrubbing. When the stripper has completed it's job, rinse thoroughly. Rinse thoroughly, and rinse thoroughly some more. I cannot overstate the fact that rinsing is very important after each step. Then, using the exact same method apply the cleaner brightener. Scrubbing and keeping it wet for the allotted time. The cleaner will have a more water type of viscosity as compared to the thick paste like stripper. These products will then Clean and Brighten the deck as

required. It is important to rinse all two or three of these products as required, and to not allow them to dry on the deck boards as this may interfere with stain adhesion and the time the stain may last.

Products we use are Peel away, Olympic, Ready strip, Super deck, Zinnzer Deck products, Cabot products, Flood Products, and others. Make sure and check these products before buying, as some are designated for contractor use only.

Applying the Sealer:

Applying different Sealers and Stains require different methods. If you go bare footed on your Deck, or your children do, remember that choosing a dark stain will make your Deck a little hotter in the summer. Applying a water based stain is harder, than applying an oil based stain. Some water based stains can be applied when the wood is still damp. If the stain can's label directions gives you a parameter for moisture levels in the wood to apply the product, make sure you adhere to it. If you do not have a moisture meter to check this, then wait until the wood is totally dry. For Decks with a solid skirting, (which we do not recommend on a Deck, by the way), you may have to open the skirting up and get some cross ventilation going. Perhaps even a fan to assist in drying it out. For oil based stains the wood must be bone dry. Water based stains have a short surface drying time of course, and will leave "lap" marks on the boards if applied too slowly, or on a hot surface. You must be able to work fast when using Water based stains. Oil based products stay wet longer, and you have quite a bit more working time when using them. The ideal conditions and time to seal a Deck or Fence is in the spring or fall, on a cloudy day, with no wind. Yes, we know, we never get the perfect day either!!!!

For application materials, there is no substitute for "Ye old paint brush" method. Stain must be worked onto and into the surface. The best way to do this is with a brush. You cannot work a roller into the edges the way you need to. Airless spray is not normally right for a small deck as you would still need to back brush. The spray would waste time and product, although on a larger deck it's fine. Remember the saying "**Doing something the right way always takes a little longer**" well, that definitely is applicable here. If you are working alone, and not a pro, brushing should be your only choice, for two people, we recommend a brush for each of you. All our Brushes are Wooster and we utilize the big 4" incher for deck staining. It can cover a lot of ground. Take 2 or more boards depending on the sun and temperature, and how much you think you can cover without leaving lap marks. Make sure to work the sealer into the edges on both sides of the deck boards as you progress. Be detailed in your brush work. Get good coverage as you go, so you do not have to go back and touch up. Depending on the type of stain, touching up is not a good thing, as it will leave a lap mark. All sealers and stains are very thin, most are about the viscosity of water. If the deck is above a concrete patio always use drop cloths or plastic underneath. When staining the handrails place drop cloths under the rails so as not to get drip marks on the deck boards. Hot dog rollers are excellent for getting under the bottom portion of your lower handrails. As always you must start at the top when applying a coating. The Pergola(if installed), Rails, then the Decking and finish with the under pinning/skirting. For fences, pay particular attention the the top of the posts (end grain) and the top of the fence pickets themselves (end grain). When first applying the stain make sure to hit these 2 areas really good. Then after you have finished, go back and apply a second coat to the top of the posts, and use a hotdog or mini roller to go along the top of the fence boards again. End grains should be completed like this as they really soak up the sealer. This is also where the fence starts to deteriorate, due to warping, and cracking, and splitting. So to "double coat" these areas is the rule.

The exceptions to the above (isn't there always an exception) is when applying your oil based "clear" sealers. The "best" application method is a garden sprayer. Covers a lot of area fairly quickly so large decks can be done pretty fast. You will still keep a brush for back brushing any heavily sprayed, or puddled areas. Pigmented stains do not work in garden sprayers even though the manufacturers directions sometimes say they will. Do not use them for anything other than the clear. For sealing Fencing, the 2 man spray method is excellent. Use an airless spray rig – one man sprays on the product and the next man back brushes the product into the surface and the edges, from top to bottom. Sounds easy, but it is back breaking work on a large, or a long fence. Fences must be completed on both sides. This is why when we are consulted about Fences we always recommend that customers build the Fence 6" to 12" inside their own property line so they can do what they please, as the Fence is totally on their property. It can become

a legal issue if a Fence is exactly on a property line as to who takes care of the fence, what color stain and so forth.

In Summation:

If the deck is “**New**” it should only require a Prep product (Cleaner & Mill Glaze remover) prior to staining. These will normally clean the wood and remove the mill glaze in preparation for staining. We classify new for this purpose as 6 months old or less. Allow to dry and apply the stain / sealer product of your choice.

If the deck is “**Older and has not been stained**”, it has, significant graying and or streaking then it may require a brightener also. In this case use the cleaner, rinse thoroughly, and then use the brightener, rinse thoroughly, allow to dry and then apply the stain of your choice. Note: Some manufacturers combine the cleaner/brightener into 1 product.

Or if the deck is **Older and has already been stained** before and requires stripping, then strip it first. Rinse thoroughly. Apply the brightener to return the wood’s PH level to normal. Rinse thoroughly, allow to dry and then apply the stain of your choice.

Or if the deck has been **previously stained and the stain you used is designed to be re-coated** (Most oil stains are but not all) you can just use the cleaner to clean your deck, allow to dry and re-coat. Caution if you do this with acrylic solid stains or any stain that do not recommend this, then you will be creating more problems in the future.

Note: Decks may also require a level of sanding. Light, Medium, or Heavy sanding, in order to facilitate the removal of some types of stain - most often Acrylics.

Note: It is very important to always know what stain was used the last time. If you hire Superior Services we keep that information on file forever. You should also keep that information. If you sell your house, please pass it on to the new owner.

Why Stain fails, and precautions to take:

In finishing up this article we’d like to say that most of the time when a stain fails, because it peeled, faded, wore through, washed away, or failed in another way, it was most likely one of the following reasons:

- 1. Stain applied improperly,**
- 2. Improper surface preparation,**
- 3. Did not clean and pressure wash the Deck or Fence**
- 4. Not fully rinsing any chemicals used during the cleaning, stripping or brightening, phases,**
- 5. It was the wrong stain, or product, for that specific application,**
- 6. Improper curing, due to a variety of factors, most often weather conditions,**
- 7. Applied a stain on the top of old coatings,**
- 8. Applied stain too thick, (stain applied too thick is subject to peel)**
- 9. Overcoating, (2 coats are not better than 1, unless manufacturer recommends 2, then apply very thin)**
- 10. Used an inferior product, (Thompson’s Water Seal comes to mind, it is junk)**
- 11. Applied a water based product over an oil based product**
- 12. Boards had a too high of a moisture content at the time of staining**
- 13. No moisture barrier installed below the deck**
- 14. Did not remove the mill glaze**
- 15. It was actually the end of the products useful service life!**

One big reason that Deck stains fail, especially Solid color stains, is moisture coming up from the ground. In the dog days of summer the sun sucks the moisture from the ground underneath your Deck, straight up through your Deck boards and pushes that solid stain right off. Remember, solid stains act more like paint in adhering to the surface than they do as penetrating stains soaking into the wood. (This

normally is a problem of the solid stains only, and the reason why we do not recommend them for use on the flat Deck surfaces.) All Decks 40 inches or less in height should have a moisture barrier put down underneath them to help alleviate this problem. The moisture barrier should be 6 to 9 mils thick, black plastic. Level all of the dirt surface before putting down the barrier so that rain water will not accumulate in any low area and create a mosquito problem. Place the plastic down overlapping the edges by 4 to 6 inches. Place a thick layer of pebbles or crushed gravel on top, approximately 3 inches, making sure you thoroughly cover all of the plastic and you are done. Be detailed in your work.

A word about Deck skirting or underpinning. Make sure it is flow thru, so that air can freely circulate. The general rule is that at least 30% of the skirting surface area must be open to air "cross flow". A total lattice skirted deck is considered about 50% open. So a combination of lattice skirting, and solid skirting can "normally" be used. The lower the deck is to grade, the less skirting options there are, as the need for cross flow ventilation increases.

New Products on the market:

There are always new products coming on the market. More than we at Superior Services can keep up with. Some interesting Deck coatings used to restore older wooden deck boards are found below. These coatings are "very thick" and can bridge the smaller checks, and cracks, that have developed as a Deck ages. These products have not been on the market but for a few years. They are not designed for use with new Decks, or Decks still in good condition. They are more of a final product to put on your deck at the end of it's natural life, in order to keep it looking good as long as possible. We personally have not used these products and have no recommendations to make as far they will last, how they look after a few years, if they will peel or not, and so forth. This for informational purposes only.

Olympic Rescue It: <http://www.youtube.com/watch?v=3i48McAG7I>

Rust-Oleum Restore: <http://www.youtube.com/watch?v=-IcXA8966b4>

The End:

Remember, your Deck, Fence or other out door structures need to be resealed as a regular recurring item of your home maintenance program. In general the better the prep work, and the proper application of products, the better chance the stain or sealer will perform as it is supposed to. So follow the advice above and read all the labels on the products you may use, so you know all the Hows, Whats, Whys, and Wheres.

Well, we at the end. Hope this article cleared some things up for you, and will provide a good base for further knowledge. If you have a question that was not covered you can "[Ask the Expert](#)". Thank you and have a great day!!!

Coming Soon - Our Farm Fence guide! - Totally different!