



NATURE'S EDGE WOOD FINISH APPLICATION GUIDELINES

These Application Guidelines are prepared and provided to lead you to the successful use of Nature's Edge Wood Finish, whether your use is a first time finish on new wood or maintenance of existing wood; exterior or interior application. This document should provide you with the essentials for most common uses of Nature's Edge, and will provide you with specific tips to get the easiest and best results for specific circumstances.

General

Much of what the industry recognizes today as "best practices" comes from research done in the Forest Products Laboratory of the U.S. Forest Service at the University of Wisconsin in Madison. For those interested in a deep understanding about the nature of wood, its' preparation, finishes and the subtle differences between species, you may review this seminal work at www.fpl.fs.fed.us/documnts/fplgtr/fplgtr113/fplgtr113.htm. We draw your special attention to Chapter 16.

Nature's Edge Wood Finish is penetrating waterborne oil which is intended to go into the wood, not on top of it. As a result, wood must be properly prepared to allow the finish to be absorbed. This means that it must be cleaned of mill glaze in the case of new wood, and previously applied finishes, stains and waxes, as well as dust, debris, mold and mildew in the case of wood that has been in use for a time.

We generally recommend a three coat application of Nature's Edge, with the first two coats being pigmented and the third or top coat being un-pigmented, simply to add additional UV and weather protection. Some of our professional customers who have chosen only one pigmented coat and two clear coats have achieved fantastic results. You can think of Nature's Edge as a sacrificial lamb. It is there to protect your wood, and over time gives up its life for the sake of the wood.

Depending on the conditions at the time of application, it is quite possible to apply more than one coat of Nature's Edge in a day. You do not need to wait for the last coat to become dry before the next coat goes on. You are only waiting for the last coat to be absorbed by the wood and into the wood before applying the next coat. You know this has occurred when the finish is tacky to the touch. Please do not rush the process, but also remember that it is a more forgiving process than what you may be accustomed to with volatile solvent based stains which frequently need to dry completely.

Inspection

The first step in preparing your wood is to inspect it closely. Observe how much dust and dirt may be in or on the wood. Look for any of the signs of decay or the presence of mold and mildew. Look for cracks and crevices in your wood (what we call "weather checks", particularly applicable to log homes) that you may want to fill or repair with a caulking like Timber Match from Timber Edge products. Make a mental note of what your wood looks like before you start preparation so that you can have a sense of what its' condition is when you are done preparing.





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Preparation

New, Weathered, Uncoated Wood

There are several principal ways to prepare your wood, and a combination of them will likely be applicable to you.

Sand: The best method to prepare wood surfaces is to sand with 80-120 grit sandpaper for vertical surfaces and 60-80 grit sandpaper for horizontal. For optimal performance and appearance on new cedar decks, mechanically sand with 60-80 grit sandpaper. Sand your wood with a longitudinal sander working in the direction of the wood grain. Never use a circular sander if you intend to apply a transparent finish, since you will mar the grain of the wood and create an uneven surface. Sanding can be particularly useful if your wood has gone an extended period since it was last maintained and is becoming more weathered and rougher than you prefer, and if you have obvious mold and mildew that is deeper into the wood than can be removed with washing only. Select the grit of your sandpaper based upon the texture and look that you want, with some consideration to the species of the wood. A finer grit paper will produce a marginally more "glossy" look after the finish is applied. A coarser grit will lead to a more rustic look, will open the grain and pores slightly more and will absorb more of the Nature's Edge Wood Finish. Color will be absorbed more in different areas of rough surface wood but will be somewhat less noticeable because of the lack of a glossy finish. While circumstances always vary, we believe that 80 grit sandpaper is probably used in 80% of the situations where sanding is appropriate. Sanding is imperative to remove mill glaze from fresh cut lumber. Think very carefully before sanding rough hewn cedar siding, since this will change the overall texture and appearance of the siding. After sanding, it is important to remove residual dust from the surface of the wood, either with a good stiff bristle (not steel) brush, or preferably by pressure washing.

An alternative to sanding for preparation is the cleaning process listed below.

Cleaning Recommendation

1. Spray the surface with clean water, wetting the wood.
2. Clean the surface with a solution of 4 ounces of Oxalic Acid crystals in a gallon of warm water. Apply this solution generously to the wood with a garden pump sprayer.
3. Let the solution sit on the wood for 20-30 minutes. During this period, scrub the surface with a hard bristle brush to help remove mill glaze and/or weathering. Do not let the solution dry on the wood. Keep it wet.
4. Pressure wash the cleaning solution from the wood with clean water. To prevent damaging the wood, do not exceed 1500 psi. The nozzle must be a maximum of 1 foot from the surface for full effectiveness.
5. Let surface dry for 1-2 days before stain application (i.e. the moisture content is below 18%).

Pressure wash your wood with a commercially available cleaner, or Timber Prep oxalic acid solution described above. Make certain to read the label on your cleaner to understand how it will





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affect plant life around the area that you are working. Some cleaners can be toxic to plant life. Depending upon the brand of cleaner you use, you need to rinse the wood with clean clear water to remove residuals before apply finish. When washing, hold the pressure nozzle several inches away from the wood surface to assure that you do not rip at the fiber of the wood or “fuzz up” the surface. We recommend that you work from high points to low points on a given structure so that you are not just moving dust and debris from one place to the next.

Spray the solution onto the wood and keep the surface wet with more solution or water for approximately 20-30 minutes. For areas of excessive sun damage or where mold and mildew have grown on the surface, you will very likely need to scrub the surface with an abrasive (brush, scouring pad, worst case sandpaper) to get it clean. Be careful not to damage the surface texture of the wood during this process. Pressure wash the entire wood surface to remove all residual cleaner.

When you are done pressure washing, the fiber of the wood will be quite saturated, and water molecules will be occupying the spaces where your Nature's Edge finish will naturally migrate to. It needs to dry for some time before you begin applying finish. How long its needs to dry depends on the porosity of the wood and local environmental conditions relating to heat, relative humidity, sun exposure and elevation. On a warm, dry day at 7,000 ft elevation in the mountains, wood may be dry enough to finish in 24 hours. On a cool, moist day in a shady location, drying will take considerably longer. If you are uncertain what “dry enough” means, apply a swatch of Nature's Edge with a heavy flood coat to an inconspicuous area on your wood. If the milky solution is not absorbed into the wood and does not become clear within roughly 15-20 minutes, you are likely too damp to successfully apply the finish to the entire structure. Give it more time.

Brush your wood with a stiff bristle brush. This method is usually only applicable to small areas of wood that have not had previous coating finishes applied, have not had normal exposure to the elements or to preparation for a maintenance coat of Nature's Edge to portion of a structure that gets excessive exposure to the elements. You will always be well served if you can wash or pressure wash your wood, but brushing only can work in these limited settings.

Comments: Preparation of existing exterior wood is considerably different than preparation of new interior wood. With new interior wood you will likely be more focused on removing mill glaze and cleaning up marks left during construction. You are less likely to encounter mold and mildew, but should inspect for them nonetheless. Make judicious use of the techniques discussed here, keeping one thing in mind: You want the surface of your wood, regardless of where it is located, to be open to absorb Nature's Edge into its pores.

Protecting Plant Life

Nature's Edge is not toxic to plant life and will not kill it, so long as you use common sense. Plants breathe through their leaves, and absorb soil nutrients through their roots. If you produce excessive airborne overspray or spill around plants, you may coat them enough that they will





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suffocate. You may avoid any hint of this problem by wetting plants with a garden hose before application, and rinsing plants that get overspray as soon as you are finished.

Preparing Nature's Edge Wood Finish for Application

In most cases, Nature's Edge is provided to you without the pigment in the finish. The unpigmented finish is what we call "clear coat" and can be used as is if you are applying a maintenance coat over wood that was previously finished. If this is the case, we simply recommend stirring or agitating the contents of the pail before application, and refer you to the section below titled "Applying a Maintenance Coat".

If you are adding a pigment or "stain" to your wood, you will have received bottles of the pigment separately from your 5 gallon pail. Each 4oz bottle contains the amount of pigment required for one 5 gallon pail of finish to obtain the color you have chosen. Shake the tint bottle for 1 minute and then empty the contents into the 5 gallon pail of Nature's Edge. Add 1 oz of water to bottle, seal with cap and shake. Empty the bottle into the 5-gallon pail. Repeat this rinsing process 2-3 times until substantially all of the pigment has been removed from the bottle. To mix pigment in the pail with clear coat, the best technique is to use your hand held power drill with a mixing attachment. Mix thoroughly for two or three minutes, satisfying yourself that the pigment is adequately mixed. Some professional applicators combine the contents of different pails of finish as they work through a job to assure color uniformity, as a matter of habit. This should not be necessary with Nature's Edge, but neither will it harm anything.

Once the pigment is mixed into the clear coat, find a small inconspicuous place to apply finish to confirm that you are getting the color that you want and expect. Apply a "flood coat" to this test patch by the method you intend to use on the whole structure (sprayer, roller, brush). If spraying or rolling, you may want to brush the finish lightly so that it doesn't accidentally run out of the test area, and so that the natural "milkiness" of the finish dissipates more quickly and you can get a sense of color. We recommend that in this test area you dedicate part of it to one coat of Nature's Edge, and part of it to two coats. Doing this you will have, side by side: an unfinished area of prepared wood, the effect of a single coat with pigment and the effect of two coats with pigment. We generally recommend two coats of pigment since it will provide better color uniformity on large wall surfaces and the added iron oxide pigment does impart some additional UV protection.

Stand back and look at the test patch you have created. Carefully evaluate what you see to make certain that you are seeing the color and hues that you expected. Take into consideration the time of day, relative sunlight and condition of the wood in your test patch versus the rest of the structure. Consider the differences in look between one pigment coat and two pigment coats and decide which you prefer. Bear in mind that the finish of the wood will look progressively deeper as clear coats are applied over the pigment. If you are satisfied with what you see, proceed with application on the entire structure. If not, take the necessary action to either change your pigment color or continue with preparation as required.





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Application of Nature's Edge to Your Entire Structure

First, make sure that weather conditions are right and working to your advantage. Nature's Edge can be applied in an ambient temperature range of 40°F to 90°F, but you need to pay attention to the likely conditions before and after application. In low temperatures, it is important to assure that the wood surface and water molecules on it are not still frozen if the temperature has been below freezing, and also to assure that temperatures will not fall below freezing too quickly after application. In high temperatures, you need to consider sun exposure and how quickly the temperature may exceed 90°F, which could drive surface temperatures far above that upper limit. The issue with excessive heat relates to the fact that with water as our solvent, you must assure that the resins can be absorbed into the wood before excessive heat evaporates the water. Common sense will be your best guide in evaluating conditions. In the event that you are applying in high temperatures, you may lightly mist the wood surface with a garden sprayer to cool it. Apply Nature's Edge while wood surface is still damp. Do not apply if rain is imminent.

We believe that the best technique, whether you are spraying, rolling or brushing, is to start at the bottom of a wall and work up. Start at one edge and work toward a logical break such as a door, window or corner. Flood coat the surface of the wood and lightly back brush the finish into the wood to avoid drips and runs. Bear in mind that Nature's Edge naturally seeks to absorb into the wood, but some amount of back brushing will aid with mechanical force to assure that this occurs. If you are using an airless sprayer, select a tip that will (commonly #13 or #15) that will give you a vertical beam of spray of 8 to 10 inches when held a comfortable distance from the wood surface.

If you have stopped application in the middle of a wall, it is best to resume application before the finish has completely absorbed and is becoming dry. To avoid lines where you have stopped and started, it is best to "feather in" the finish with a brush along these lines. Nature's Edge is very forgiving in this regard, but it is always best to be cautious.

When you have finished applying a coat of finish and are ready to begin applying the next, check to assure that the finish at your starting point has dried to the point of being tacky by touching it with a finger. If it is tacky or even dryer, you can begin applying your next coat with confidence. If not, take a break and give it more time to absorb. It is important to note that there is not a time limit that you must observe between coat applications, and it is not at all important that the finish be dry before applying your next coat. Waiting time is directly related to the size of the structure that you are finishing, and the temperature and relative humidity at the time of application. Let common sense be your guide, and simply avoid being too aggressive. Bear in mind that it will take less and less finish to coat your surface with each successive application, but that it also takes marginally more time for the finish to absorb with each successive application.





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Applying a Maintenance Coat

All exterior wood finishes require some element of maintenance. A best practice is to inspect the finish of your wood once each year as described in "Inspection" above. You will almost certainly need to apply a maintenance coat every one to four years, again dependent upon exposure to the elements. When inspecting, compare an exposed surface to a less exposed surface such as an area under eaves or awnings. This will allow you to judge how much the elements have broken down the protective clear coat on your wood. When is "too much" simply "too much"? Use your judgment to decide. If during inspection you find mold, mildew, weather checks or other damage to your wood, correct those problems before applying a maintenance coat.

Before applying a maintenance coat, we recommend that you pressure wash your wood. Thereafter, follow the "Application" instructions above and apply a clear coat to the entire structure.

There is a fine line between "maintenance" and "restoration" of wood. If you allow a finish to degrade for too long without a maintenance coat, you may well find that you need to apply a pigment coat to restore the color to the wood. Further, wood that has gone too long between maintenance coats may want and need more than a single coat, particularly on south and west facing surfaces. Let common sense be your guide. If the wood surface very readily absorbs a first maintenance coat, experiment in an inconspicuous area with application of a second coat, then make your decision accordingly. Since subsequent coats consume less finish, and since you do not have to wait for Nature's Edge to completely dry between applications, there is very little downside to providing that extra element of protection to your wood.

Clean-Up

Clean-up of equipment and tools is best accomplished with warm soapy water or a diluted solution of Timber Prep or similar cleaner. For electro-mechanical sprayers, make sure that you follow the manufacturer's directions for cleaning. Dispose of containers, tarps and other materials in accordance with local, state and federal regulations.

Storage

Always store containers of Nature's Edge out of the direct sunlight, and avoid freezing. Nature's Edge is a waterborne finish, and freezing the water will destroy the ability of Nature's Edge to do its job.





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Health and Safety Precautions

Always keep Nature's Edge out of the reach of children. Do not consume internally. If swallowed, do not induce vomiting. Consult a physician immediately. Avoid breathing vapor or mist since this may be harmful to lung and circulatory tissues.

The absence in Nature's Edge of the noxious smell associated with oil-in-solvent and latex based stains are certainly desirable for all. However, as with plant life discussed above, the absence of solvents does not mean that the aerosolized mist of Nature's Edge will not damaged your lungs and the mucosal tissues of your eyes, sinuses and mouth, and your skin. You must be cautious when applying Nature's Edge, particularly in enclosed indoor areas, and use common sense to avoid injury.

Helpful Work Tips

Here are some helpful tips, passed on to us by our Professional Applicator customers that may assist you in achieving the outstanding result that you are looking for.

Preparation. It is difficult to over-prepare the wood you intend to finish. While there is certainly a point of diminishing returns in preparation, the quality of the finished job is significantly dependent upon the quality of your preparation.

If you intend to power wash a surface one day and begin applying Nature's Edge the next, consider your starting point in the context of where the sun will help you dry right away so that you are not delayed by excessive dampness when you are ready to start application.

Horizontal Surfaces. Nature's Edge can be successfully used on horizontal surfaces such as floors, railings and window casements. Since these surfaces frequently have a smoother, tighter surface finish, it will take slightly longer for Nature's Edge to be absorbed than I would on a rougher exterior surface. You are likely to apply somewhat less finish in each coat than you would on an exterior, and will need to let your experience be your guide. As with any horizontal surface finish, do not walk on or otherwise disturb the finish until it has dried. It is important to remember that Nature's Edge absorbs into the wood, and that this means the wood itself will be exposed unless and until you apply a protective top coat. At least for floors, we recommend that you apply a top coat of a traditional urethane coating to protect your wood from wear. Even with this top coat, you will notice how Nature's Edge significantly enhances and deepens that look of a treated horizontal surface.

Getting the color and hue that you want. All species of wood differ in how they express the color of the pigments in your finish. Even wood of the same species will show color differently depending upon age, texture and similar factors. While the hues of color are fairly constant, intensity of the color based upon absorption into the wood can vary. You may contact Timber Edge or your local retailer directly for a "wet sample", a small bottle of finish with the pigment





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color that you think you want, along with a small bottle of clear coat, and use these wet samples to apply to a prepared inconspicuous place on your wood. A small, nominal fee may apply to this service, but it can be well worth your while.

To somewhat minimize or soften color intensity but still have the wood hues that you want, you may choose to add only half of the bottle of pigment recommended for each container of finish, or similarly apply only one pigment coat. Since you will lose some marginal amount of UV protection with these techniques, they are only recommended to discriminating customers who will commit to routine maintenance.

Dealing with wind when applying finish. Wind can complicate application, particularly on warm sunny days if you are using a sprayer, since water evaporation will occur at an accelerated rate and can affect how Nature's Edge is absorbed. Blowing dust and debris can become trapped in finish and diminish the quality of your end result. If wind becomes a factor, it is best to simply finish the section you are working, and watch a baseball game.

Applying to fascia, board and baton, beveled siding and soffits. The color coats can be applied to the wood before the wood is installed, with a sprayer, brush or roller. The clear coat can be applied after installation. If the wood is 1" or less in thickness, put a clear coat on the back side of the wood first to minimize cupping of the wood over time.

Unanswered questions? If you have a special circumstance or unanswered question, please feel free to contact Timber Edge directly and get expert advice.

