

# TeakGuard Application Manual

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Teak Guard Products, 3729 Riva Ridge Dr.  
Hamilton, Ohio 45011 800-448-TEAK (8325)

**NEVER Let Your TeakGuard Finish FREEZE!**

## **Caution – Read Before Using Teak Guard:**

Prior use of sodium hydroxide for teak cleaning requires careful attention before applying Teak Guard Super Cleaner and Finish.

1. Neutralize all lingering sodium hydroxide.
2. Use a neutralizing agent such as 12% hydrochloric acid to counteract all residual sodium hydroxide.
3. Rinse, Rinse, Rinse. Remove any trace of the neutralizing agent and residual sodium hydroxide with water before applying Teak Guard Super Cleaner. The Super Cleaner is intended to soften and remove the teak resin left on the wood, not remove other chemicals
4. Not neutralizing thoroughly will result in the unwanted white and hazy teak finish beneath the Teak Guard.

## **General Notes on Teak Wood**

Teakwood is a beautiful and durable wood that will last for years with no maintenance at all if protected, but...it turns gray and black, and becomes deeply etched by mold growing on its surface when it is not. These conditions can be avoided to some extent by applying any number of products to your teak on a very regular basis. Applying TeakGuard Products, as described in this user manual, will extend the time between applications to at least one year, and often longer, without repeating the stripping and cleaning process.

The procedures for applying TeakGuard described here have been developed over many years by successful and some not-so-successful TeakGuard users. They include the manufacturer and a large group of customers who have shared their experiences and expertise with us. We are providing this information to you so you can take the direct path to successful use of TeakGuard Products.

## **Facts About Teak**

Teak, like many tropical woods, is saturated with a hard, waxy, oil substance that protects the wood from bugs, disease, mold, and the effects of weather and the sun. This is not to say that there are no effects from these forces of nature, but the effects over time are reduced by a very large measure when compared to other woods that do not have these protective oils.

Left unprotected, teak and teak products will remain usable for many years. However, unprotected teak will turn gray, develop black spots and eventually become heavily grooved (checked) from the effects of frost and mold growth. TeakGuard Finish stops these problems completely.

## **Teak Oils**

“Teak oil,” as it is commonly used in reference to teak wood, refers to products bought and applied to teak wood to give it a rich, honey color and protect it from the normal everyday conditions that furniture is expected to encounter. These products are, in fact, not “teak oil” as in the oil or resin that saturates the teakwood. They generally contain a combination of mineral oil, Tung oil, varnish, beeswax, carnauba wax and other oils and waxes mixed with solvents and drying agents to harden them faster. They work very well on wood that is not exposed to the weather or the sun. However, they do poorly when used on teak left outside and exposed to the ravages of the climate. In fact, some actually promote or support mold growth.

References to “Teak Oil” in this document refer to the waxy resin that saturates your teakwood.

## **TeakGuard Finish**

TeakGuard Finish is the only product of its kind; it allows moisture to escape by "breathing" through the finish, while at the same time sealing in the wood's natural oils. Additionally, TeakGuard uses a combination of UV absorbers and reflectors to protect your teak from the ultraviolet rays of the sun, giving it 100% coverage. TeakGuard's polymer resin base will not allow mold or mildew growth and does not stain fiberglass.

## **Life Expectancy of Teak**

Protecting your teak with TeakGuard Finish is one of the best ways to extend its life. The only provision is that the cleaning process described in this document must be executed so that the bulk of the indigenous teak oil is removed from the surface of the teak before applying TeakGuard Finish. When cleaned as described, the base coat of the TeakGuard can last for years and will require only minor cleaning and recoating to retain its original color and luster.

*Shortening Your Teak's Life:*

- Cleaning teak with chlorine bleach, chlorine pool shock or sodium hydroxide to lighten stains and remove mold discoloration
- Repeated sanding to remove failed finishes
- Improper pressure washing techniques

Some cleaning and bleaching products can permanently damage the surface of the teak by breaking down and weakening the bonds between the individual fibers that make up the wood. They also remove much of the natural coloration of the wood.

If your teak has been cleaned with sodium hydroxide or strong chlorine bleach products, there is a very real possibility that the bonds between the individual fibers of the teak have been damaged and weakened. This does not happen in all cases, but in those cases where it has, you can expect even TeakGuard Finish to peel off at least once when the bonds finally break completely. There is nothing short of deep sanding that will prevent this potential peeling condition. However, we do not recommend deep sanding as a preventative action to avoid what is only a potential problem.

Repeated sanding to remove failed finishes turns your teak investment into dust.

Improper pressure washing techniques and equipment can gouge and deeply check the surface of the teak, leaving it very rough.

## **Preparing Your Teak**

The procedure for cleaning teak depends on several parameters, including:

- What products were previously applied to the wood
- The general surface condition of your teakwood
- What you want the teak to look like when you are finished
- What kind of power equipment you are using

## Removing Previously Applied Products

Products like varnish, urethane, epoxy, and silicon based finishes can be very difficult to remove completely, especially silicon products. Using stripping products specifically designed for the product you are dealing with is highly recommended. When stripping boat decking, make sure the stripper will not and is not damaging your seals, fiberglass or metalwork.

Chemically stripping varnish, urethane and epoxy with the manufacturer recommended chemicals is very effective and removes the vast majority of the material. Sanding with 50 to 70 grit wet/dry sand paper will remove enough of what is left to make coating with TeakGuard Finish successful after cleaning with TeakGuard Cleaner (as described below).

## Removing Silicon Based Finishes

Removing silicon based finishes is very nearly impossible, even with stripping and deep sanding. We recommend that you continue the use of silicon products once started.

## General Surface Conditions

The surface condition of the teak will determine the look and feel of the finished product. However, teak is not a wood that can be made extremely smooth because it has deep natural pores and open grain when clean. The surface smoothness also determines how much TeakGuard will be needed to coat an area. The rougher the surface, the more finish per square measure will be necessary.

## New Furniture

Most teak furniture manufacturers use an electric buffer and pumas to make the surface of new teak furniture look and feel very smooth. This polishes the wood's surface and mixes the resulting teak dust, pumas and teak oil into a hard paste that fills the pores and grain. **This “filler” must be removed before applying TeakGuard Finish.** TeakGuard Super Cleaner is designed specifically to ease the removal of this material. To make this process **much easier**, wet sand the teak with a medium grit sanding sponge. Sand enough to break the glaze on the surface as it will materially improve the process.

## Older Teak

Teak that has been allowed to turn silver gray is covered with oxidized teak oil and dead wood. Often there is mold or moss growing on the wood (generally in wet shaded areas). If the wood is heavily checked or has deep grain lines, sanding the surfaces is often an obvious and appropriate choice.

Wet sanding with 50 to 70 grit waterproof sand paper and a palm or jitterbug sander will reduce the work required significantly (Use 120 grit as a final step to get a furniture finish). Using 3M medium grit sanding sponges in areas where the power sander cannot be used works very well. Wet sanding eliminates the “loading” of the sand paper and wood while producing as smooth a surface as you care to create. Finally, use one of the TeakGuard Cleaners small scrub brush and/or bronze wool to loosen and remove the new teak oil exposed by the forgoing cleaning efforts. Then rinse with plain water while continuing to brush or buff with bronze wool to remove the loosened teak oil and expended cleaner.

## Swim Platforms and Decking

When working on swim platforms and decking, it is important to leave some grain on the wood so that water caught under shoes and feet has escape paths. TeakGuard Finish is not naturally slippery,

but any smooth surfaces will promote hydroplaning, resulting in falls and injuries.

## **What Finish Look Do You Want?**

TeakGuard Finish will produce a honey colored finish on teak that ranges from light honey to fairly dark honey based on the natural color of your wood and the number of coats of TeakGuard Finish applied. The design goal of TeakGuard Finish was to make teak look like it has just been oiled, but without all the sticky mess and constant cleaning and recoating.

The finish product is controlled by 3 factors:

- The roughness of the wood,
- The number of coats of finish applied, and
- The action taken between coats.

## **Furniture-Like Finishes**

Furniture-like finishes are attainable, but the wood must be very smooth at the start (finish sanded with 120 grit paper). It will take at least 6 to 8 coats of TeakGuard. The procedure is:

1. Apply 2 thin coats of TeakGuard Finish. Allow the first coat to dry 30 minutes and the second coat to dry for 24 hours. These first two coats should be thoroughly worked into all the grain, nooks and tight areas with the brushes provided. They are the basis on which the rest depends.
2. Lightly buff along the grain of the wood with dry bronze wool to remove the grain rise, debris and dust. Wipe the surface clean.
3. Apply 2 thin coats. Allow the first coat to dry for 30 minutes and the second coat to dry for 24 hours.
4. Lightly wet sand the finish with 400 grit paper to take off the high spots. Be careful not to sand the corners too hard, as they will thin out very quickly. Wipe the surface clean and repeat step 3.

Repeating steps 3 and 4 several times will result in a deep rich color and a very fine and smooth finish perfect for furniture, tabletops, handrails and bright work. This procedure produces a finish that is much too smooth to be walked on, as in the case of swim platforms, decking and step treads.

## **Swim Platforms, Decks and Steps**

Swim platforms, decks and steps should never be given a furniture-like finish. TeakGuard finish does not produce a slippery finish, **but** any smooth surface (when wet) can be very slippery.

At a minimum, swim platforms, decks and steps need to be cleaned to remove the indigenous teak oil from the pores and checking with teak cleaner, then rinsed and finished with 4 to 6 coats of TeakGuard Finish. Buffing the surface with dry bronze wool after the second or third coat is appropriate to remove the grain rise, but should not be used on swim platforms.

## **Using Power Tools**

Power tools (like pressure washers and air or electric powered sanders) can substantially reduce the time and labor required to finish teak. There are, however, some important issues to be considered.

### **Pressure Washers**

Pressure washing teak can be a tremendous time saver, especially when working on heavily grayed, moldy or moss covered teak. However, improper use of high-pressure water sprayers (pressure washers) can be absolutely devastating to the surface of teak, leaving deep gouges and frayed wood. When used improperly on boat decking, power washers can actually destroy the bond between the caulking and the teak planks, causing the decking to leak.

Guidelines for proper use of pressure washers include:

- Limit the water pressure to less than 1500 PSI
- Use only 30 or 40 degree nozzles
- Keep the nozzle at least 6 inches from the wood
- Keep the angle between the wood and the water flow below 45 degrees
- Move the spray along the length of the grain of the wood, not across the grain
- Do not direct the spray into mortis joints or corners at close range

Exceeding these limits briefly may not ruin your teak, however, severe gouging can happen very quickly if the nozzle gets too close to the wood. Using a 15-degree nozzle makes gouging and fraying almost unavoidable, and can cause serious splitting on end grain.

## **Power Sanders**

Air and electric power sanders can reduce the time and effort to refinish your teak, but use them with caution. They can also damage your teak.

**Belt Sanders** remove a lot of material in a very short period of time with minimal effort. This is a tremendous advantage when working on heavily checked teak, but if that teak happens to be boat decking, it will also tear the surface of the rubber seals between the boards.

Belt sanders can also quickly create deep grooves in the wood that are very difficult to remove. Finally, belt sanding creates lots of heat. Heat softens the and draws out the teak oil, which then mixes with the sanding dust. This often results in both the sanding belt and the wood loading up with the teak oil and sanding dust mixture. It will have to be removed later with TeakGuard Cleaner.

Electric shock hazard is a serious problem when wet sanding with an electric sander. Make sure that your sander is equipped with a working grounding circuit and your power outlet has a tested and working ground fault protection system.

**Orbital Sanders** like electric palm sanders and air operated jitterbug sanders are the best choice for power sanders. They are safe, easy to use, and substantially reduce the chances of over-sanding a small area and damaging the wood.

**Wet Sanding** with an ungrounded electric palm sander should be avoided. However, wet sanding with a jitterbug is very safe and effective, but requires a high-pressure air supply.

Regardless of the type of sander used, 50 to 70 grit paper should be used. If you are looking for a furniture finish, 120 grit can be used as a finish paper. Finer paper should only be used to sand the TeakGuard Finish between coats by hand, never on the raw teak.

## **Cleaning Your Teak**

All of the procedures thus far address preparing the surface of your teak for final cleaning and coating with TeakGuard Finish. If the cleaning process outlined here is not followed, you can be sure that the

TeakGuard Finish will come off in 3 to 8 months! It is not a pretty sight and one that can be avoided by simply following these instructions.

Whether your teak is brand new, freshly sanded, freshly pressure washed or just gray with oxidized teak oil, it needs to be cleaned with a cleaner that is capable of removing teak oil without damaging the wood. (Please note that household products including bleach may lighten your teak but will not remove teak oil).

## TeakGuard Super Cleaner

Both teak boat and teak furniture owners will benefit greatly from TeakGuard Super Cleaner. It is a truly unique wood-cleaning product. It uses no alkaline or caustic chemicals. It's biodegradable, pH neutral, and environmentally very friendly.

New TeakGuard Super Cleaner cleans so well it requires only about 10% of the labor required by other cleaning products. It removes more debris and teak resin with very little labor, no bronze wool, and no strong chemicals. You'll think you are dreaming. Rinsing TeakGuard Super Cleaner with fresh water leaves no residue.

Apply TeakGuard Super Cleaner with a fine sprayer (included with the 8 ounce bottle). Apply only enough cleaner to wet the area. Allow cleaner 30 to 60 seconds to soak in and break up the debris and teak resin on the surface of your teak (*do not let it dry*). Brush along the grain with a small plastic scrub brush in open areas and a hard bristle toothbrush in tight areas and corners where the larger brush will not fit easily. Brush long enough to loosen and remove all remaining debris. Rinse with a slow running open hose while brushing until the water runs clear.

When the entire area or piece is cleaned, rinse the entire area with a hose and nozzle on high. Allow the wood to dry completely and inspect carefully for missed area. Re-clean and rinse as necessary.

## What Doesn't Work

- Plastic scrubber pads do not work because they have very poor cutting action.
- **Regular steel wool should never ever be used on teak** because it leaves tiny fragments of steel that rust and discolor your teak the first time it gets wet.
- Large wire brushes made of steel should never be used; they gouge the softer parts of the wood, increasing the checking.
- Sanding or scrubbing with detergent, bleach or harsh cleaners does remove mold and some stains, but they do not remove teak oil.
- Chlorine bleach and sodium hydroxide cleaners can damage the teak and weaken the bonds that hold the wood together. Often this damage does not appear for several months or years or after a hard freeze has occurred. The result is that the TeakGuard Finish comes off in strips often as big as ¼" by ¾" with clearly visible wood fibers on the back. Call for more information on this situation.
- Pressure washers can be used as described, but must be used carefully. Pressure washing will remove much of the gray debris and mold residue, but will not remove the fresh teak oil. They are also very effective at removing the last traces of spent teak cleaner and bronze wool fragments after the cleaning process has been completed. Always use pressure washers with caution.

## **Bronze Wool**

Bronze wool is very sharp. Therefore, it is very important to wear fabric-lined rubber gloves to protect your hands from the hazards posed. Bronze wool cuts can be very deep and painful by themselves so do wear gloves. They work.

## **Grain Rise**

In most cases, a grain rise will appear after the cleaned teak has dried. This fuzz can be buffed off with dry bronze wool or just left for later. If you do not achieve a grain rise (which happens sometimes when cleaning was preceded by wet sanding), you may not have gotten all of the dead oil off your teak. Repeat the cleaning process in a small section of the affected area. If you still do not get a grain rise, it may just be your teak. If you *do* get a grain rise in the test area, re-clean the entire affected area. It really is important to remove as much teak oil as possible! TeakGuard Super Cleaner almost never causes a grain rise even when the wood is cleaned perfectly.

## **Applying TeakGuard Finish**

Having prepared and cleaned your teak as described above, let it dry completely and apply the first thin coat of TeakGuard Finish. The first coat should be applied as soon after the wood has dried – normally 15 – 20 minutes. The sun will draw fresh teak oil to the surface of the wood very quickly allowing mold spores to land on the freshly cleaned teak. Having mold under the TeakGuard will let the TeakGuard peel off the teak in 3-5 months.

## **Shake TeakGuard Often**

TeakGuard Finish is made up of many components, one of which is in suspension, not solution. This is an important point because this component is one of the two UV inhibitors. It needs to be on your teak, not settled in the bottom of the bottle or cup holding the TeakGuard.

*Shaking TeakGuard well and often before you apply it is absolutely necessary.*

There should be no red residue visible on the side or bottom of the bottle. Further, if you have bought TeakGuard in a large bottle, you may want to transfer some into a smaller (16 ounce) bottle that has a flip-top cap so that it can be shaken easily each time you use it.

Applying TeakGuard with a sponge brush is preferable to using a bristle brush, because a bristle brush drips badly and applies too much material. Applying a small amount of TeakGuard Finish directly to the wood and then spreading it with a foam brush works very well.

The first coat of TeakGuard Finish is the bonding coat and the one that will make all the difference regarding the ultimate life of the finish! It should be applied as soon after the area has dried as is practical 15-20 minutes and not during the heat of the day. The TeakGuard Finish should always be applied in thin coats that are thoroughly brushed into the grain of the wood. If the TeakGuard finish looks milky while drying, too much material was applied. Drying time should be at least 15 minutes. If it is drying faster, shade the area with a tarp or move to a shaded area.

The additional coats can be applied as soon as the previous coat is dry to the touch. The first two or three coats should then be left to dry over night to give the polymerization process time to proceed and the finish to harden.

If brush marks or color lines develop as the TeakGuard Finish is drying, it is due to the water evaporating and the finish becoming too concentrated. Simply add fresh water to the TeakGuard (1 to 3 ounces per 16 ounces to replace the lost water). When the area with the marks has dried for 15 to 30



minutes, lightly buff just the marks with bronze wool to remove the excess finish and color. The longer the finish dries the harder removing the marks will become.

If you are looking for a finer finish, lightly buff the area with dry bronze wool, to remove the grain rise and roughness. Dust and apply additional coats of TeakGuard Finish.

- We recommend that you **do not** apply this procedure on swim platforms to avoid conditions that would promote your feet hydroplaning on the water or algae.
- We recommend that no less than 3 coats of TeakGuard be applied to raw teak. Traffic areas should be coated 4 to 6 times to extend the life of the finish.
- Seats, hand rails and bright work tables, chairs and other furniture should be given 3 to 8 coats based on the color and finish you are trying to achieve.

## **Stain Protection**

For additional stain protection, a thin coat of carnauba wax can be applied after a few days to further protect areas that are likely to get food and drink spills. Even with this additional protection, spills should be cleaned promptly. This wax must be removed with soap and water before additional TeakGuard Finished is applied.

## **Renewing Your TeakGuard Finish**

TeakGuard Finish, like all man made products, oxidizes and wears due to hand and foot traffic. Occasionally action needs to be taken, usually at 1-year intervals, to keep your teak looking great and avoid wearing through to the raw wood.

Applying an additional coat or two of TeakGuard to old but clean TeakGuard Finish will freshen and restore the finish to a like-new condition. The additional TeakGuard soaks in and bonds with the existing finish, renewing the finish for as long as the original lasted.

Drying time is approximately 10-20 minutes between coats and still requires the 24-hour curing time to reach maximum strength.

## **Repairing TeakGuard**

Repairing TeakGuard is a very simple process similar to painting with watercolors. Freshening a thinning area involves washing the area with mild soap and buffing lightly with bronze wool or fine sandpaper before applying as many coats of TeakGuard as are necessary to match the surrounding area's color. Deeper scratches and areas that have worn through to the wood will need to be cleaned and feathered with a TeakGuard Cleaner and bronze wool, rinsed and dried before applying the TeakGuard Finish. As always, thin coats should be applied until the area matches the surrounding area. TeakGuard Finish can be diluted with water to make the color matching process easier.

When you have used sodium hydroxide to clean your teak before wanting to use Teak Guard Super Cleaner and Finish, you **MUST** neutralize the residual sodium hydroxide thoroughly first. Use a strong acid such as 12% hydrochloric acid. Then you must rinse these products thoroughly before applying any Teak Guard. Otherwise, the teak will turn white and hazy under the teak.

## **What Is TeakGuard?**

TeakGuard Products contain NO OIL. TeakGuard products are designed to be safe and easy to use. TeakGuard Finish is a water-based mixture of acrylic polymers that is non-toxic and non- flammable and **must be protected from freezing**. Shake well before and during use. TeakGuard Super Cleaner is a mixture of cleaners and degreasers that are pH neutral and safe to use. It will clean the natural oils out of your skin as well. Use rubber gloves. Safety Data Sheets (SDS) are available on our web site.

# !!! CAUTION !!!

## Protect TeakGuard Finish From Freezing

**Never ever use TeakGuard Finish that has been frozen. If it has turned green or has globs of material in the bottle throw it away. It is permanently destroyed and cannot be remixed.**

### Warranty

Properly applied TeakGuard is guaranteed for one year not to chip, peel or fade. It will, however, oxidize and wear from foot and hand traffic. Worn or thin areas should be treated as described in the Renewing and Repairing TeakGuard sections.

### Sizes

	Unit Size	Units/Case
TeakGuard Finish	16 oz.	12/Case
	1/2 gal.	4/Case
TeakGuard Super Cleaner	8 oz.	20/Case
	16 oz.	12/Case
TeakGuard Cleaner	16 oz.	12/Case
	1/2 gal.	4/Case
Bronze Wool	3 Pad pack	24/Case
16 Ounce Kit	16 oz. TeakGuard Finish 8 oz. Teak Super Cleaner 1 Pkg. Bronze Wool 3 Foam Brushes 2 Special Scrub Brushes	
64 Ounce Kit	64 oz. TeakGuard Finish 2-8 oz. Teak Super Cleaner 3 Pkgs. Bronze Wool 12 Foam Brushes 2 Special Scrub Brushes	
128 Ounce Kit	2-64 oz. TeakGuard Finish 4-8 oz. Teak Super Cleaner 6 Pkgs. Bronze Wool 24 Foam Brushes 2 Special Scrub Brushes	

Dealer Discounts Available

Teak Guard Products 3729 Riva Ridge Drive, Hamilton, Ohio 45011

800-448-TEAK

Fax 1-513-868-8886

Email: [Info@allguardproducts.com](mailto:Info@allguardproducts.com)

Web Page: [www.teakguardproducts.com](http://www.teakguardproducts.com)