Restoring the Dream

Sashco's Log & Wood Home
Restoration Guide

sashco
Products That Work®

Don’t know where to start? Start here.

Welcome to new-found hope.

The goal: get your log home looking the same way it does in your mind’s eye. Whether you plan to do the work yourself or hire a contractor, this booklet will arm you with the education and confidence you need to restore your log home.

Get started with a bit of inspiration.

Visit **www.sashco.com/real-restorations** now to read real-life stories of full log home restorations. View before and after photos and get the how-they-did-it info. Then dig into this booklet for the nitty-gritty details.

RESTORATION: IMPOSSIBLE

Real homes. Real transformations.

Need personalized advice? We do that.
Our friendly and knowledgeable Customer Service Team can help.
(Bonus: you’ll get a real human when you call, not an annoying phone tree.)

Call us: 800-767-5656
Chat live: www.sashco.com

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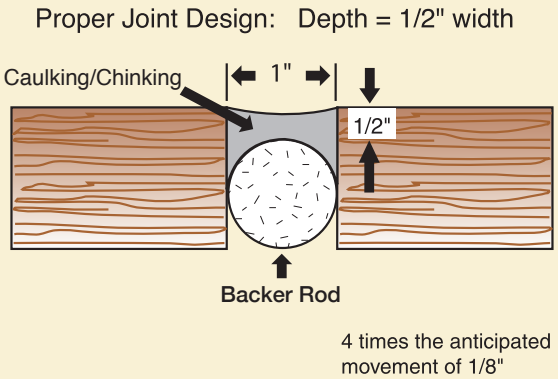
Helpful Terms to Know:

Bond Breaker
Used behind a sealant to provide proper joint design.
There are generally 2 types:

Backer Rod: foam rod, either round or trapezoid shape, that is inserted into the joint before sealants are applied.

Tape: clear packing tape and duct tape are the most common bond-breaker tapes. They are typically applied over old mortar chinking or house wrap underneath the chink line.



Caulking
(Sashco's Conceal® and Log Builder® are both caulks)
Sealant used in cracks and checks smaller than 2" wide. Often blends in with stain color.

Check
A crack in the face of wood, especially logs, that is created as the wood dries.

Chinking
(Sashco's Log Jam® is chinking)
Sealant used to give that old-time mortar look. Generally used in joints 1"–5" wide and contrasts with the stain color.

Felting
Wood "fuzz" created whenever some sort of blasting (media or power washing) has been done.

Finishing Products
A general category referring to all products used to finish a wood home interior or exterior, including wood preservatives, stains, sealants, etc.

Sealing
Filling in cracks, checks and gaps to prevent air, moisture, and insect infiltration. Types of sealants are chinking and caulking.

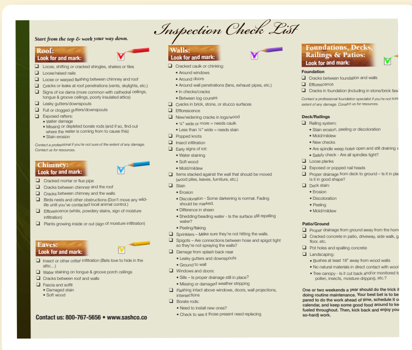
Stain
(Sashco's Capture®, Transformation Stain® Log & Timber and Transformation Stain® Siding & Trim are stains)
A type of coating. Paint, varnish, clear coat, stains, etc. are technically all *coatings*. Most wood and log homeowners use a stain, which deposits color but allows the grain to show through.

Tannins
Naturally occurring chemicals in wood that can leave dark brown stains on the surface if/when extracted. They can be unsightly but do not affect the structure of the wood.

UV
Ultra violet. Refers to the type of radiation the earth naturally receives from the sun.

It All Starts With an Inspection

Perhaps you see flaking, peeling stain. Maybe your logs are so dark, you don't know exactly what is on there anymore. You can see places where the chinking or caulking is definitely not performing anymore. Or, maybe you know there are pockets of rot, but you just don't know how extensive it is.



Sashco's Log Home Inspection Guide

The ultimate goal is to get the wood back to a sound surface – one as close to that just-been-peeled-and-ready-for-building look as possible. But before you can formulate a plan, you need to first know what to plan for.

Time for an inspection. Head over to **www.sashco.com/log-home/restore-log-home** to download a detailed checklist for your inspection.

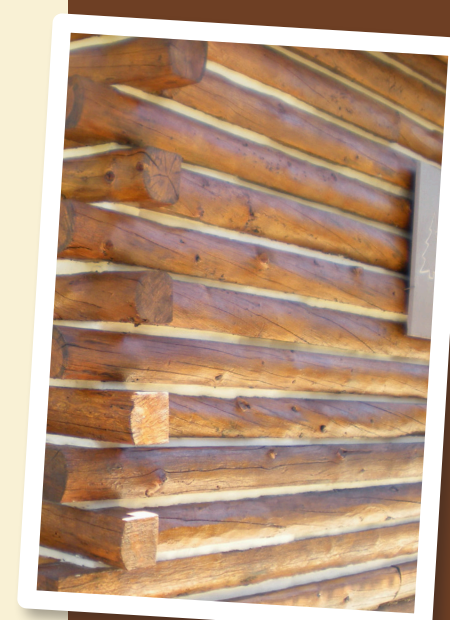
Before Restoration

It's especially important on any restoration project to inspect for rot. Small amounts can be easily repaired with epoxies and putty available through Sashco log product retailers. Larger pockets may require some sort of log replacement and will mean hiring a qualified contractor.

Find a Log Contractor

Once your inspection is complete, read on to learn how to get that sound surface.

Already know you're going to need a pro?
Visit **www.sashco.com/log-home/find-a-contractor** to find specialty log home restoration contractors in your area.



After Restoration

Home Design Tips

Wood is beautiful and rustic, but it must be protected to retain its beauty. Sun, wind, moisture, and insects can all wreak havoc on your wood home and rob you of the charm of living in a wood home.

Construction & Location

The style and location of your home can affect stain longevity and the amount of maintenance required for your home. Eaves, porches, proper drainage, and the position of your home on the lot all come into play. Whenever feasible, incorporate these features into your home. On restoration jobs, it's not always possible without altering the structure. A good building contractor who specializes in log homes can give guideance and do the work.

- Use large eave overhangs. A minimum of 24" is good and 36" is even better.
- Install gutters, down spouts and generous flashings (where appropriate) to direct moisture away from the wood.
- Use covered porches to help protect the wood from moisture and sun damage.
- Keep the wood at least 18" above the ground.
- Don't let leaking spigots or sprinklers spray water directly onto your wood.
- Keep plants a minimum of 18" away from your wood. This goes for mulch and other organic ground cover, which can be a breeding ground for insects.
- Use trees to shade the east, west, and south sides of your home from direct sunlight and heat. Make sure the trees aren't so close that insects and residual moisture can drop down onto your walls. Be sure to consider the tree canopy at maturity. Plant new trees far enough away to accommodate appropriate space between your home and the tree, and consider cutting it back or relocating older trees for the same reason.

The key is to minimize exposure to soil, insects, moisture, and sunlight.

Before You Stain . . . 5 Prerequsites

Now that you've chosen that perfect color of stain, it's time to make sure the wood is ready to be stained. Before you can dive into applying the stain, it's best to understand the criteria for any long-lasting finish job. Below are the five prerequisites every log or wood homeowner should know as they start the staining process:

1. Clean Wood

Don't take short cuts here. Absolutely bare, clean wood is essential for effective stain application and adhesion. These common items will make wood unclean:

- Dirt
- Mold/Mildew
- Pollen
- Bird droppings
- Grease
- Oil
- Wax
- Peeling finishes (old stains, paints, clear coats, etc.)
- Crumbling mortar chinking
- And many others!

All of these things must be removed prior to applying any finishing products. Refer to the "Prep Time" section for details on how to get your wood clean.

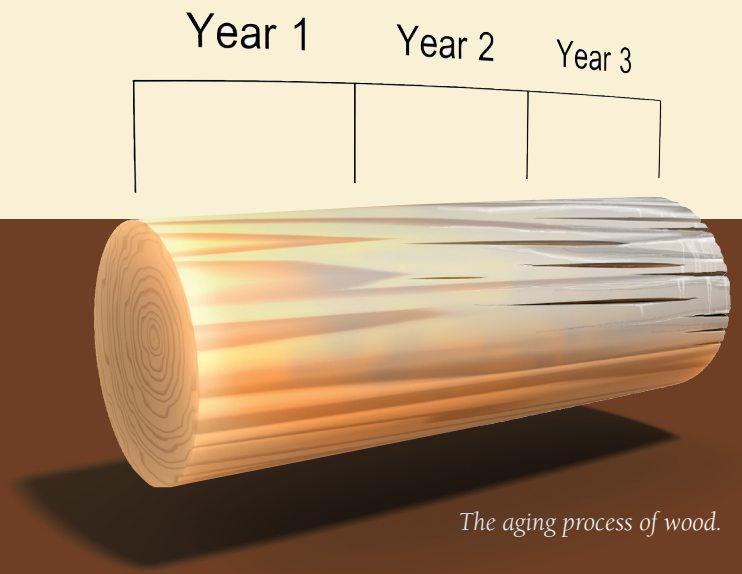
2. Sound Wood

Your wood should be in the best possible condition prior to staining. Research, reported by the USDA Forest Products Laboratory and other investigators around the world, has conclusively shown that bare wood exposed to sunlight for as little as one week can suffer enough damage to the surface wood cells to significantly reduce the adhesion of paints and stains, leading to premature failure. And your wood is exposed to a lot more than sun!

So what are the main causes of unsound wood (loose wood fibers)?

Weathering

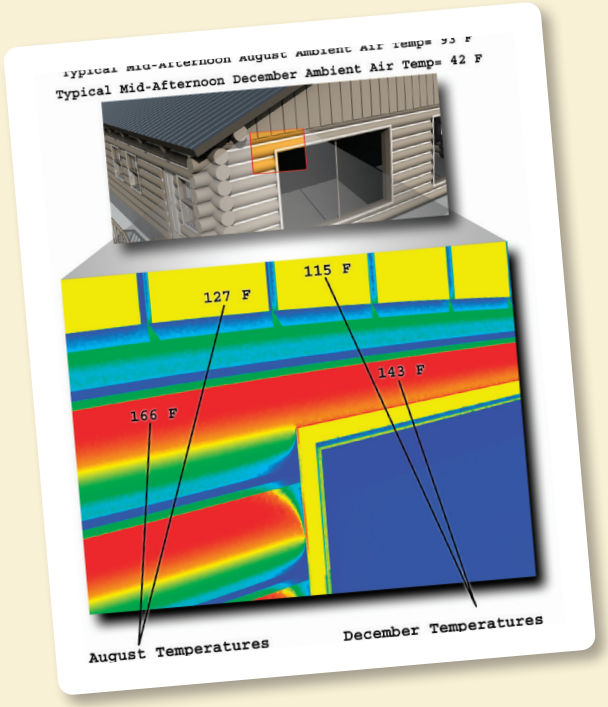
Sun, moisture, wind, and insects all contribute to the creation of unsound wood. You'll see your wood go from its bare, light color to an amber yellow (or yellow undertone), to a gray. All weathered wood must be removed prior to applying finishing products to give those new products the best adhesion to the wood and greatest longevity.



The aging process of wood.

Sunlight & Round Logs

All wood can be damaged by UV rays, but the upper curvature of round logs receives more intense exposure from the sun. This intense light attacks the wood and anything on it (including your stain) with high-energy, ultraviolet radiation and drastically heats the surface of the logs, even on cold winter days. Radical temperature fluctuations like those described in the graphic below cause the logs to contract and expand at a significant and constant rate, stressing and eventually breaking down the wood fibers.



Take a look at the log surface temperatures compared to the ambient air temperature. Notice that vertical siding receives sunlight at angles less than 90°, reflecting much of the energy away. Not on logs! Sunlight has the chance to strike portions of the upper curvature head-on, full-force, at a 90° angle. In fact, some logs may exceed 170°F in the summer!

Rot and Insect Infestation

Severe rotting or insect infestations can occur to the point that the structural integrity of the home is affected. Rot must be removed and the cause remedied. Wood or log replacement or re-facing may be necessary. However, most homes just need a face-lift. Insect infestations must be eliminated and the wood inspected for structural integrity before moving forward with finishing.

Deteriorated Older Coatings

Many older wood homes have an old stain, paint, or clear coat on them and most homeowners don't know what brand or type of stain it is. Unless that old paint or stain is in good shape, it's best to completely remove it. Removing it exposes the sound wood underneath. The new stain adheres much better to the sound wood and you get greater longevity out of the stain. (In some instances a new stain can be used over the old. Contact Sashco to discuss your particular circumstances.)

All weathered, UV damaged, and rotted wood should be removed, along with any old stains and paints, to provide you with the optimal surface for future stain adhesion and performance. The "Prep Time" section discusses in-depth how to do this.

Picture of rotted and insect infested logs.

Deteriorated coatings like this need to be removed before re-staining.

3. Warm Wood

Your wood and the air temperature should not be extremely hot or cold at the time of application. If wood is too hot, the stain may dry before proper penetration has occurred. On the other hand, cold wood can cause products to freeze and prevent proper penetration. Avoid applying stain or sealants in direct sunlight. Use a surface thermometer to make sure the temperature is within the recommendations made by the product manufacturer.

4. Dry Wood

Wood must be dried to a surface moisture content of 19% or less, and the drier the better. Use a wood moisture meter to avoid guessing! Too much moisture can cause a number of issues, such as:

- ***Peeling and flaking***. As the excess moisture is vaporized and tries to escape the wood, it will stress the stain, leading to peeling and flaking.
- ***Poor adhesion.*** Any finishing product applied to a moisture-laden surface will have a hard time getting good adhesion from the get go, obviously affecting protection.
- ***Mold, mildew, and rot.*** All of these moisture-induced problems can be expensive to fix and will re-occur if their causes are not determined and remedied.

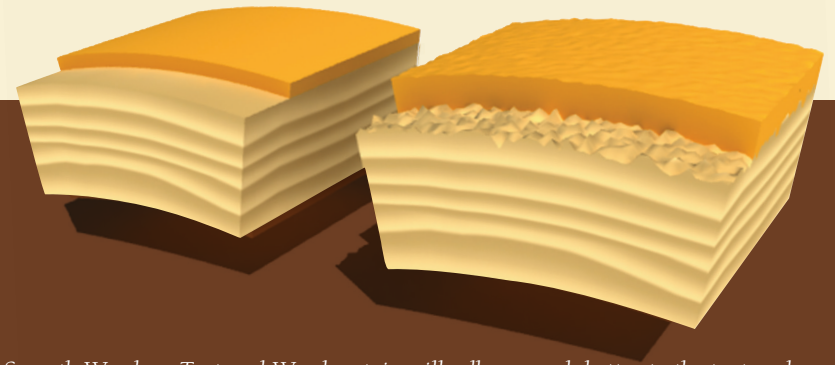
A typical infrared surface thermometer

Keep in mind that wood, especially logs, is loaded with unavoidable cracks and holes, all of which permit moisture to penetrate the wood. The checks and cracks that occur on the upper curvature of logs collect water, which seeps into adjacent wood. The sun then heats up this moisture and it tries to escape. If it can't easily escape, it will force its way out, leading to problems. In addition, water trapped in a check can freeze and expand, causing the crack or check to expand even more and expose more wood, a virtual open house invitation to wood-destroying fungi and insects. The "Time to Stain and Seal" section discusses in detail how to seal your home from moisture infiltration.

5. Textured Wood

Simply put, the more textured an exterior wood surface, the longer the stain will last. This is especially true on the upper curvature of logs. The texture allows the wood to take on much more stain. This, in turn, provides greater overall protection. On older log homes, the underlying wood is often already textured from age, so getting it to a reasonable texture often takes a variety of prep types.

The "Prep Time" section discusses in detail how to prep your wood to get a textured surface.



Smooth Wood vs. Textured Wood – stain will adhere much better to the textured wood on the right, improving performance and longevity.

Prep Time

You now know the prerequisites for a good staining job. It's time to prepare your wood for staining. Substrate preparation is the most critical step in achieving stain longevity. As Kurt Denman of Benjamin Moore® stated in the February 2007 edition of *Coatings World* magazine, *"I cannot emphasize enough how critical proper preparation is to realize a successful staining project. It's the ultimate determinant on how long the beauty of a job lasts."* Properly preparing the wood from the get-go will save you both time and money down the road.

Getting to Sound Wood

Before you apply any type of stain to logs or wood, the surface must be clean and free of any dust, debris, unsound surface wood, cambium, bark and mill glaze. The following photos of different wood prep results are general results. Your restoration project may end up needing several of these prep types to achieve that sound wood surface. The only way to know is to experiment and see what will get you that just-been-peeled-and-ready-to-build look. The best overall cleaning methods are:

Before *After*

Media blasting with crushed glass or corn cob media. Crushed glass is especially good at removing stubborn stains, either fresh or old, and tends to leave less "felting" (wood fuzz), reducing and possibly eliminating the amount of secondary prep that may be necessary. This method also leaves the most desirable wood color.

Before *After*

Power washing with secondary prep. Power washing, when done properly, allowed to thoroughly dry, and followed by good secondary prep (sanding, Osborn® brushes, Buffy pads, etc.), can produce a good result. Ask us for more details on proper power washing.

Before *After*

Hand sanding. The best tools for this are Osborn® brushes or a 60- to 80-grit sand paper. This method doesn't always leave the ideal wood texture for exterior finishing – the wood can be too smooth, which can impede stain adhesion – but is better than chemical cleaning, as it is dry prep. It is a great method to use for interior staining where a rough texture is not necessary and the smoother texture it leaves makes interior cleaning easier.

Before *After*

Power washing with chemicals, followed by secondary prep. It's always best to avoid chemicals, if possible, as they can be hard to neutralize and can later affect stain adhesion if not completely removed from the wood. That said, chemicals are sometimes needed to remove old, stubborn stains and/or to remove discoloration from tannins, age and UV damage. Always start with the least harsh chemical cleaner and move on to something more harsh only if necessary. It is also important to test your selected chemical cleaner, no matter which one it is, on the target wood. This is because it is not always possible to predict what color effects may occur.

Chemical Cleaners

Below is a brief discussion of the most popular types of chemical cleaners, along with their strengths and weaknesses. They are listed in order of most gentle to most aggressive:

1. Sodium Per Carbonate (Oxygen Bleach)

(Sashco's CPR® Cleaner and Brightener falls into this category)

Pros:

- Environmentally friendly and safest to use
- Disassociates into hydrogen peroxide, soda ash, and water – that's all!
- Won't aggressively corrode metal fasteners
- Little affect on stains applied if not totally rinsed off
- Kills mildew and strongly bleaches most types of wood

Cons:

- Can't be used on un-aged redwood or other high-tannin woods (causes discoloration)
- More expensive than other cleaners/bleaches
- Residual soda ash can appear as whitish patches underneath a stain if not well rinsed

2. Trisodium Phosphate (TSP)

This cleaner is usually combined with chlorine bleach.

Pros:

- Readily available
- Inexpensive
- Good cleaner

Cons:

- No bleaching action
- Residual TSP can interfere with stain adhesion

3. Chlorine bleach

Pros:
- Strongly bleaches all types of wood
- Inexpensive
- Readily available
- Kills mildew

Cons:
- Chlorine gas can be released if mixed with other household chemicals (Chlorine gas can be hazardous or fatal)
- Kills plants, especially new growth
- Can degrade wood cells
- Very corrosive to metal fasteners (nails and screws)
- Can affect adhesion of stain if not completely rinsed from the surface

4. Oxalic Acid

Pros:
- Particularly good at removing tannin stains
- Best choice for Redwood (other types discolor Redwood)
- Best choice for removing rust stains

Cons:
- Does not kill mildew
- Is a poison and must be handled very carefully
- Must be thoroughly rinsed and neutralized to avoid a host of negative effects (poor adhesion, discolored wood, and others)

Secondary Prep

Don't forget this step! When properly done, most blasting methods are going to create at least some "felting" – wood fuzz – that should be removed prior to applying any finishing products. All of that wood fuzz will eventually fall off. If there's stain that is applied to that wood fuzz, it will simply fall off with the fuzz, leaving a mottled look and leaving those areas exposed to the elements. In addition, sometimes blasting can raise the grain a bit too much and make the wood more coarse than most like it. While the coarse texture is good for stain adhesion, it makes for a rougher look and darker stain, both of which are not always aesthetically pleasing.

The best tools to use to remove this felting and make the texture a bit smoother are Osborn® brushes or Sashco's Buffy Pad system, both of which attach to a variable speed grinder. Of course, random orbital sanders with 60- or 80-grit sandpaper will work, but will be more time consuming and don't always do as good a job.

Felted Wood

Sashco's Buffy Pad System

Osborn® Brush

Preservatives

Applying some type of wood preservative to your home is like taking out an inexpensive insurance policy. These preservative products are mostly borate-based and are designed to protect your wood from rot and wood-ingesting insects. Adding this affordable step at the beginning can save you many headaches down the road, including the time and money it costs to replace damaged wood.

There are two main types of whole-home preservatives on the market: borate-based powders that are mixed with water and sprayed on your home (like Tim-bor®) and borate-based products in a glycol formula that are applied directly out of the container. Independent research proves that there is no difference in penetration between borate powders that are mixed with water and their glycol counterparts, but glycol preservatives are more expensive. Why pay more for the same protection?

Tim-bor®

Applying Tim-bor® is easy! You simply spray or brush the liquid mixture on your wood prior to staining. (Keep in mind that wood preservatives can only be applied to bare, stain-free wood.)

Borate Rods

Borate-based rods, such as Cobra™ Rods, are available in a variety of sizes to fit any application. These rods are ideal for placement in that they are at higher risk for decay, such as: base wood courses, corner construction, exposed purlins, rafters or overhangs, exposed log railings, and below windows, doors, or dormers—especially when regularly subjected to high volumes of water. They are very easy to install: simply drill a hole, install the rod, and seal with caulking. As always, be sure to follow the manufacturer's recommended placement instructions.

Log cross-section showing an installed borate rod.

Cobra™ Rods come in various sizes.

Choosing a Stain

Choosing a stain and actually staining are two very different things. Part of the plan must be to sample the stain on the logs so you know what color to expect.

1. Compatibility

If your home is already stained, stain compatibility is a huge issue because not all stains are compatible with one another – nor with all sealants. That's why it's important to select a stain that will be compatible with caulking and chinking. When you consider that an average 2,200 sq. ft. ranch style log home has literally one mile of log joints, many of which will need to be sealed at some point in time, adhesion compatibility with the stain you use is critical.

2. Stain Types and Performance

There are three different types of stains available to you. Keep in mind that not all stains are created equal, and how deep a stain penetrates doesn't necessarily equate into better performance. The best value for your dollar may be in a more expensive stain that has been formulated for a specific type of application, i.e. decks, logs, wood siding, etc. With all types, good prep is important to get the maximum longevity. Sashco recommends going with a surface stain or a shallow penetrating stain, both of which afford your home the greatest protection and long-term performance. The three types of stains are discussed below:

- **Surface Stains** (Sashco's Capture® Log Stain and Cascade® system, as well as Symphony® interior clear coat, fall into this category)
  - OK to use on restoration projects when the previous stain is water-based
  - Little, if any, penetration into the first layer of closed wood cells
  - Rely on adhesion and elasticity for performance
  - Good for use on most wood surfaces – hand-rails and vertical surfaces
  - Should not be used on roofing shingles and does not perform well on decks
  - Quality brands have good longevity

- **Shallow-Penetrating Stains** (Both of the Transformation Stain® products fall into this category)
  - Best for use on restoration products where the previous stain is oil-based or unknown
  - Penetrates into wood about 1-3 cells deep
  - Good for use on vertical wood surfaces
  - Some brands are good on decks and fences
  - Should not be used on roofing shingles
  - Quality brands have good longevity

- **Deep Penetrating Oil Stains**
  - Not recommended on restoration projects
  - Can penetrate as much as ¼" or more into wood
  - Good for decks, hand-rails and roofing materials
  - Not compatible with most other finishing products (sealants in particular)
  - Appearance is short-lived, even with frequent re-application

3. Finally Choosing a Color

Color is a sensitive issue! It's important to request samples and test several different stains and colors to ensure you get the color you have dreamed of.

Sashco recommends that you stay away from clear stains. Why? In sun-drenched areas where only a clear stain is used, the wood's natural color will begin to darken after only a few months. While you're not alone in wanting to keep as natural a look as possible, clear coatings that promise to preserve the "just built" look are misleading. It's impossible to load enough UV absorbers in any clear stain to sufficiently protect your wood. And even though the stain may still be repelling water, dark yellow and gray discoloration of the wood is a sure sign that the UV absorbers have lost their effectiveness.

We recommend you stick with high quality, UV absorbing stains loaded with pigments – which is where you get the majority of your UV protection – and follow these testing procedures to make sure you get it right before you start:

- Read the stain manufacturer's application instructions.
- Apply the stain sample to **your home** (not just a scrap of wood that is lying around) to be certain that you get the color you want. Due to the extreme transparency of most wood stains, the color of the stain will be influenced by the color on the older home being restored, this is especially important, as aged wood looks quite different from new wood.
- Prep the color testing area using the same method that you will use on the entire home. (For example, if you plan on media blasting, media blast that section. If power washing, power wash that section.)
- Apply the sample using the same application method you plan to use on the entire home. (If directions say to spray apply the stain, be sure to spray apply the sample stain.)
- Allow the sample to dry at least 24 hours for full color development.
- If working with a contractor, don't allow the contractor to stain until you have thoroughly discussed and demonstrated the look you want. Show him/her the sample.
- Don't stain the entire home before you verify that you're achieving the look you want. It is best if you can be on-site when staining starts.

Time to Stain and Seal

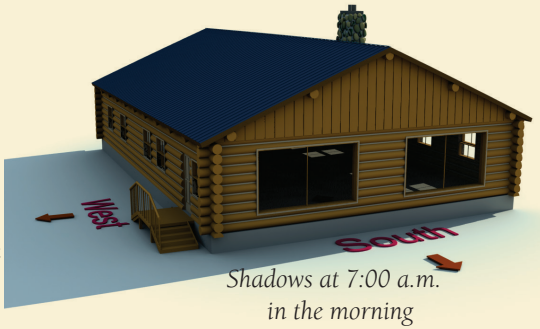
It's finally time to stain! If you've followed all the steps for proper preparation, you're ready to stain. The latest advancements in stain technology and application techniques allow most anyone to properly stain a home. You're almost there! Your restored home isn't far off!

Optimal Conditions

Every stain manufacturer prints the optimum application temperatures and weather conditions on their literature. It is wise to follow their instructions carefully.

Stains should not be applied at extreme temperatures (hot or cold), as previously discussed in *"Warm Wood"*.

It helps to start staining in the morning on the south and west sides of the home, while the wood is at its coolest point. Stain the north and east sides of the home in the hotter parts of the day, as shown in the pictures at the right.



Shadows at 7:00 a.m. in the morning

Shadows at 5:00 p.m. in the afternoon

Also try to avoid applying stain right before or right after extreme weather. For example, staining 24 hours before a major rain storm will not allow enough time for most stains to properly dry. This could lead to the stain getting "washed off" the wood by the rain. If high winds are expected, the stain may dry too quickly, or excessive amounts of sand and dust may stick to the fresh stain. (A light breeze is obviously OK, and in many cases is a welcome relief from the heat!)

Staining Your Home

Boxing Stain

There is always a chance of small color differences between lots of stains (like lot variations in carpet or drapes); therefore, it is important to intermix, or "box", different lots of stains before application. This will help ensure uniformity of color even when different lot numbers are used.

Additional Fungicides

In areas with high moisture exposure, it is advisable (for exterior use only) to add an additional loading of fungicide to the stain and any finishing clear coat just before application to help control surface mildew. We recommend Stay Clean I/E® with all of Sashco's stains.

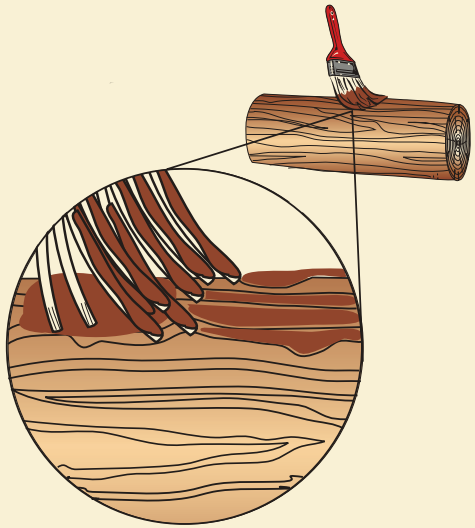
Application Techniques

Pay attention to the number of coats recommended for your stain. Both color and gloss can vary greatly from one coat to the next. Regardless of which stain you have selected, the best staining method is usually to spray and vigorously back brush. Some may desire to brush on the stain. If this is the case, be sure to stick with the

1 coat (left) vs. 2 coats (right) – it makes a difference!

manufacturer's coverage rates. If you end up with a lot of left over stain, you probably haven't applied enough and should brush on another coat.
Making sure you apply enough stain ensures proper UV protection.

Back Brushing
Don't skip this step, and be prepared to get a workout! Back brushing "pumps" the stain into all the tiny checks and crevices characteristic of wood. This helps the stain adhere better to the wood by anchoring it onto the wood surface. This results in a longer-lasting finish that will require less maintenance over time.

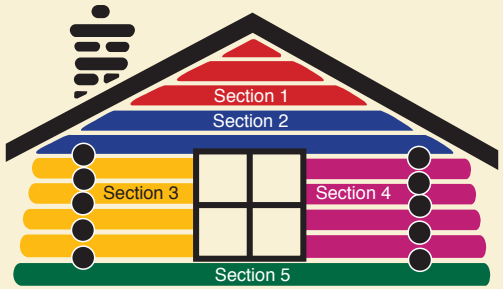


Back brushing anchors the stain for optimal performance.

Avoiding Lap Marks
Maybe you've seen homes that look "striped." That look is a result of spraying and not brushing out the excess product that overlapped onto the previously sprayed section. Lap marks are usually a result of poor application techniques.

To avoid lap marks, it's best to work horizontally and in sections. If brushing, minimize lap marks by keeping a wet edge and "feathering out" the stain—trailing it out into a ragged "nothing."

Sealing Your Home



For best results, stain in sections as shown above.

Feathering Technique: use only if stopping in the middle of a wall is unavoidable.

All wood will shrink, move, and change shape in it's life, leaving behind openings both in the wood itself (known as "checks"), as well as between the courses on a log home. This means that every home will require sealing in at least some areas at some point in time. It's important to pay close attention to checks, cracks, and other openings, as they act as troughs for rain and melting snow, funneling water to the interior of the wood and possibly the home, which can lead to a number of other problems. In general, any opening ¼" or larger, and especially in the corners and upper curvature of logs, should be sealed.

Logs in particular are a different "breed" of wood. Make sure the sealants you select have been formulated for use on log structures. This means they need to be elastic enough to handle the stress and strains of the extreme expansion and contraction

Chinked logs & open check

characteristic of log homes. When a high-quality sealant is properly applied, it won't ever need to be re-done unless there is unusual and unpredictable movement of the On a full restoration, the prep portion of the project does a sufficient job.

At initial application, let the stain completely dry, then apply a high-quality sealant that is compatible with your stain. Why after staining? For a couple reasons:

- The stain acts as a primer for the caulk. The caulk will adhere much better to the stain than to bare wood.
- The stain provides an added barrier of protection in the joint. Should that joint open up more over time and stress the caulk, the stain is there to repel water until you can seal the joint again.

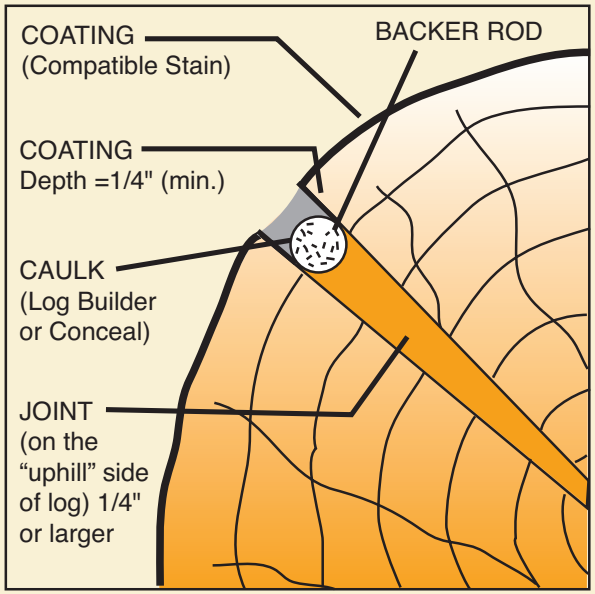
For ideal treatment of checks and cracks, be sure to follow these simple steps:

1) Thoroughly clean the inside surfaces of the check (where the caulk will be in contact) to remove dirt and unsound wood.
2) Stain the wood with a product that is compatible with caulking and chinking, making sure it seeps into the check.
3) Insert backer rod in all checks ¼" wide or larger to the appropriate depth (no more than ½" deep, no less than ¼" deep).
4) Gun the caulking into the check. Sashco's

Log Builder® or Conceal® is ideal for this application.

5) Smooth (tool) the caulk to ensure good adhesion to the wood.

Sealant Repair



On most any log home, some logs will undergo extreme movement. This movement is a part of what makes a log a log. Moderate movement is normal, but the occasional maverick log can randomly and unpredictably twist, shrink or warp in response to moisture changes, moving more than any sealant can possibly handle. When this extreme movement occurs, it will cause the sealant to fail either cohesively or adhesively. To repair this damage, follow these instructions:

- **Cohesive failure** (sealant splits apart): Simply clean the surfaces of the failed sealant and re-apply more.
- **Adhesive failure** (sealant pulls cleanly away from the wood): Remove the sealant completely and re-apply.

Cohesive failure of chinking

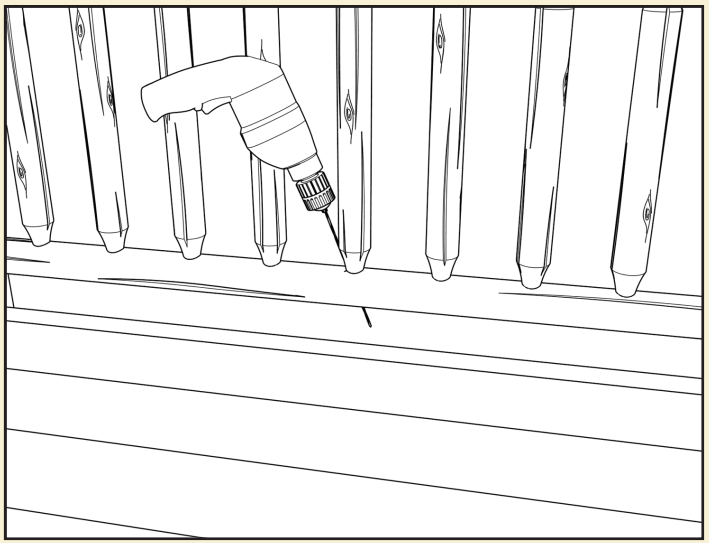
Adhesive failure of chinking

Extreme Exposure: Railing Care

Outdoor hand rails, especially

those not protected by overhangs, require specialized and more frequent care because of the extreme exposure to weather. All the same prep instructions given earlier should be followed when prepping railings.

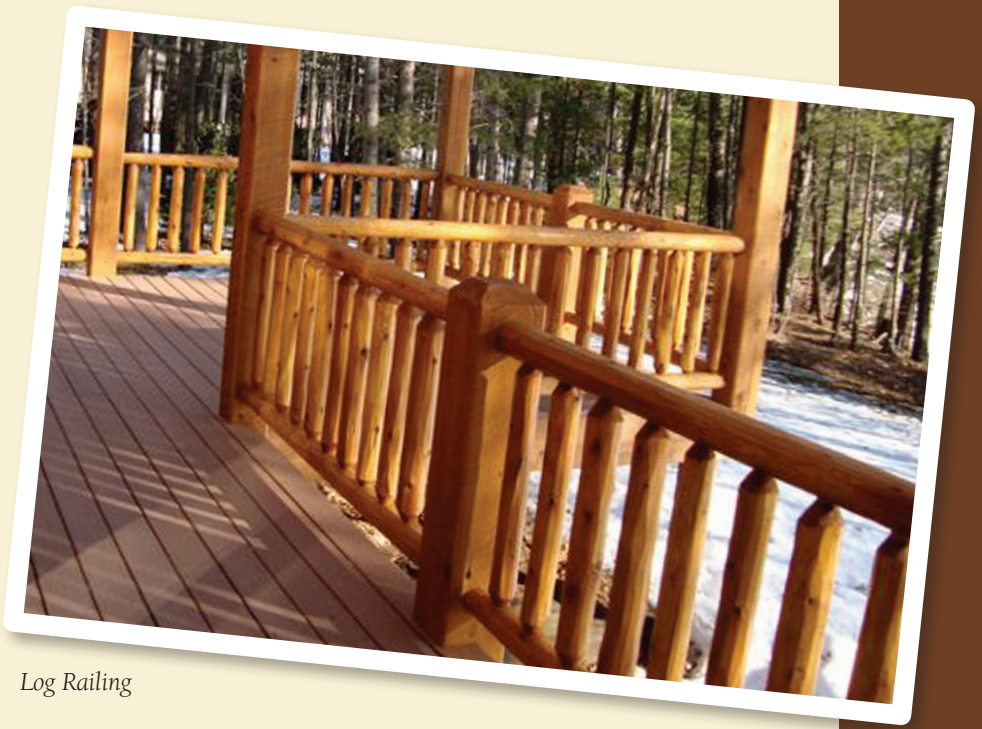
Typical log-spindle handrails are particularly vulnerable to decay because they are often built and assembled with non-draining holes that easily and quickly accumulate water, creating perfect rot conditions. If such a situation exists for you, then it is wise to retrofit such features by drilling drainage or weep holes and inserting borate rods to give some added insurance.



Drilling a weep hole through the rail provides an escape route for the water.

Interior Finishing

Have you ever tried to run a cloth over un-



Log Railing

stained wood? It's horrible! It catches on the wood, doesn't remove the dust and ultimately makes a bigger mess. Finishing the interior wood means hassle-free cleaning and a constant warm glow for added ambiance. Best of all, interior finishing needs to be done only once. Routine cleaning – wiping down cobwebs, dust that settles, fingerprints, etc. – is all that's needed to maintain the finish and keep the wood looking like new.

You can apply just a clear coat, or a coat of stain followed by a clear coat. The pros and cons of both are discussed below.

Follow these simple steps to prep and finish your interior wood:

1. Prep the Wood

Clean any mold or mildew.

If the wood has any mold or mildew growing on it, use a mild cleaner (such as Sashco's CPR®) in its mildest solution to clean the wood. Thoroughly rinse to neutralize the cleaner and allow the wood to dry. Be sure to protect any flooring or other fixtures from runoff.

Remove any yellowed or gray wood.

The easiest and safest way to prep interior wood is to sand or buff it down. As with exterior finishing, it is necessary to remove yellowed and/or gray wood. An Osborn® Brush, Sashco's Buffy Pad system or 60- to 80-grit sandpaper are the best tools for this kind of work. Do NOT "spot prep." Sanding one area and not another will result in a blotchy look. It is important to do an entire area to get an even appearance.

2. Apply Stain

(Sashco's Capture® Log Stain and Transformation Stain® Siding & Trim stains are good interior stains.)

Applying one light coat of stain is a good idea if you have large windows that allow a lot of sunlight to get into the home, or if you're concerned about "picture frame effect" happening. Picture-frame effect happens when a picture covers a part of the wall and the surrounding wood is exposed to UV radiation. The surrounding wood will turn yellow, while the wood underneath the picture remains the original wood color. On the interior, one light coat of stain is sufficient to protect against this phenomenon, although you can certainly apply more than one coat to achieve a richer, darker color. As always, be sure to get samples and test an inconspicuous area to ensure you get the look you want.

3. Apply a Clear Coat

(Sashco's Symphony® is an interior clear coat.)

A clear coat is a must, whether you stain or not, and is the final step in achieving that smooth surface for easy cleaning. It also brings out the grain of the wood to help give it that warm glow. Two coats are best. Get samples of the different sheens available and test to make sure you get the look you want.

Wood home interior finished with Sashco's Symphony® clear coat

Maintaining Your Home

Hindsight is 20/20. Doing a full home restoration has likely given you a new perspective on the importance of routine maintenance. You know better than anyone that ongoing maintenance is one of the most important steps that results in cost savings (and fewer headaches) through the years.

Use the same Log Home Maintenance Checklist you used at the beginning of the process to perform semi-annual maintenance checks. Check once in the spring for any winter damage, then again in the fall for summer damage. One or two weekends a year will keep your restoration job in tip-top shape so you can avoid doing another restoration in the future.

Before Restoration *After Restoration*

Restoration IS Possible

We hope you found this guide helpful. Even more than that, we trust that you've found hope, education, and confidence you need to get over that "I don't know where to start" hump.

Your log home restoration isn't far off! If we missed a question, please contact us.

Good luck, and be sure to share your restoration story progress with us. We always enjoy receiving photos of your journey and celebrating with you.

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