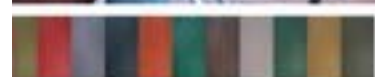


STAINS AND FINISHES APPLICATION GUIDE



LIFELINE™

WORLD CLASS PERFORMANCE

WHY LIFELINE™?

In addition to building a quality home, you want to build a beautiful home, which is why the finished appearance of your logs is so important. By using a high quality stain upfront, you'll get a distinguished looking wood finish that will set your home apart from the rest. Available in a wide variety of styles and shades (think warm honey hues to spicy cinnamon and rich walnut), Perma-Chink Systems manufactures superior finishes that protect your logs while showcasing their inherent beauty. They allow the wood grain to emerge so the color complements the wood rather than covering it. Unlike many other tinted stains the color endures, meaning fewer touchups over time.

A high performance finish gives long-lasting color retention through the use of a balanced formulation and long lasting mildew inhibitors. By applying a clear topcoat, you also have the opportunity to create a gloss or satin finish and greatly extend the life of the stain system.

- APPEARANCE
- LONGEVITY
- VALUE
- ENVIRONMENT



EXTERIOR PRODUCTS

LIFELINE ULTRA-7™

→ The highest performance one-coat stain with very low VOC and unsurpassed adhesion to wood. For walls and decks.

LIFELINE ACCENTS™

→ The two-coat color finish system developed to make your home look fashionable.

LIFELINE ULTRA-2™

→ Advanced waterborne formula enriches the natural wood grain and protects against damaging UV from the sun.

LIFELINE EXTERIOR™

→ Our value priced semi-transparent exterior wall stain and sealer.

LIFELINE ADVANCE™

→ Clear topcoat - the second component of our exterior wall finish system.

INTERIOR PRODUCTS

LIFELINE INTERIOR™

→ Can be used as a color and sealing coat on walls when you want to apply an interior clear-coat for additional protection.

LIFELINE ACCENTS™

→ The new colors create a wonderful accent for your wood trim, interior walls, millwork, furniture and other wood elements of your home.

LIFELINE ACRYLIC™

→ Attractive and durable protective topcoat that adds depth to the finish. It can be applied over *Lifeline Interior*, *Lifeline Accents*, *Prelude* or directly to bare wood.

SURE SHINE™

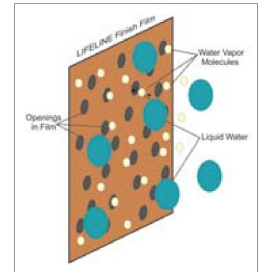
→ Most durable interior clear finish for all wood inside your home. Creates lustrous deep-shine finish. Can be used to coat and re-coat old floor finishes.

LIFELINE™ - APPLICATION TIPS

- 1 Stir containers of LIFELINE finishes thoroughly before starting. Remember that even clear-coats require stirring to blend different ingredients within the container. Use a drill powered paint agitator for 5 minutes on newly opened container to completely mix settled ingredients.

NOTE: *Sure Shine* should be hand-stirred, using a paddle to avoid entrapping air in the liquid.

- 2 When using multiple containers of colored finishes, they should be 'boxed'. Do this by thoroughly stirring LIFELINE in its original container and then combining contents of different containers together in a separate container.
- 3 To avoid leaning ladders against freshly applied LIFELINE, it is best to start at the top of the wall. Place ladder end on unfinished logs below your work line.
- 4 Wipe up runs and drips immediately. They will come off best using a wet rag.
- 5 When you take a break, submerge sprayer tip in water to prevent clogging with partially dried LIFELINE.
- 6 Avoid lap marks. Work on one or two courses of logs at a time and never stop in the middle of a log. Work to natural break points such as corners, window edges, butt ends of logs or other natural break points. Continue application by running a wet edge until a break point is reached. As you approach a break point, feather your wet edge and begin to run brush out of LIFELINE. Start spray pattern away from the break point and finish back-brushing to the break.
- 7 Apply LIFELINE in thin coats. If it runs down the wall, you are applying too much. OBSERVE CORRECT COVERAGE RATES as listed on label.



One of the best features of our LIFELINE finish systems is the ability to breathe or vapor permeability. It's the ability of water vapor to permeate through a film. We encourage you to apply our finishes in thin layers. When applied too thick even acrylic latex film can have difficulty breathing.

- 8 When spraying, hold spray tip about 1 foot away from wall, using smooth strokes to apply evenly. Back-brush immediately to even out the application and to work finish into wood surfaces and into fissures and checks at the surface.
- 9 LIFELINE can be applied by brush, but using a sprayer followed by brushing the wet application (back-brushing) is much more efficient and produces best results.
- 10 *Lifeline Ultra-7*, *Lifeline Ultra-2*, *Lifeline Accents*, *Lifeline Exterior*, *Lifeline Interior*, *Lifeline Advance* clear coat are all applied using the same techniques. Read all label instructions fully before beginning. *Acrylic Gloss*, *Acrylic Satin* and *Sure Shine* are slightly different and techniques vary slightly. See label instructions for details.

Protect exposed end-grain from the elements!
Log End Seal provides a durable, water-repellent barrier. *Log End Seal* must be applied in a thin coat after the basecoat of *Lifeline* wood finish and before the application of *Lifeline Advance* clear topcoat of *Lifeline Advance* clear topcoat, creating a triple layer of protection.

PROPER SURFACE PREPARATION

GENERAL

Nothing determines the quality, appearance and performance of your wood finish as much as proper preparation. Careful attention to tools, chemicals, and cleaners that you use will help you ensure the best performance and lowest maintenance effort for your home.

All surfaces must be cleaned before application of finishes. If there is anything that cleaners will not remove, then sanding is probably your next choice. Be aware that spot sanding can cause surface texture differences that will show up after finish application. It is best to continue sanding the whole log for best appearance. Sanders or *Osborn* brushes work well to smooth wood surfaces and remove most contaminants. Never use steel wool.

AVOID THESE MISTAKES:

Use of chlorine based cleaners is the single biggest mistake made in preparation. The use of cleaners with unknown ingredients is the second biggest mistake. Perma-Chink Systems has formulated wood cleaners that are unique to the industry in their ability to clean and brighten wood surfaces without damaging wood fibers or causing damage to existing finishes (other cleaners soften finishes, making them susceptible to damage during cleaning.)

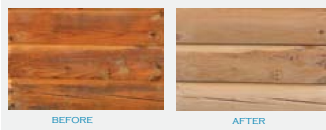


INTERIOR

Before you apply coatings to interior surfaces, always thoroughly wash them with a recommended cleaning solution. *Log Wash* is made for this purpose and should be used as follows:

Mix two cups of *Log Wash* Concentrate with one gallon of warm water in a pail. Apply the *Log Wash* solution to the wall with a rag or sponge. Allow the solution to remain on the wall and wet for at least 10 minutes. Using a clean rag or sponge and a pail of clean water, wipe the *Log Wash* solution off of the surface. Frequently rinse the sponge or rag in the pail of water and frequently exchange the water in the pail with clean water.

SURFACE CLEANED WITH LOG WASH™



EXTERIOR - NEW CONSTRUCTION

LOG WASH™

A liquid concentrate for cleaning and conditioning bare wood surfaces and LIFELINE finishes.

WOOD RENEW™

A cleaning concentrate for use on bare wood. Removes UV damaged gray wood fibers.

OXCON™

A liquid concentrate oxalic acid solution for removing dark colored streaks from metallic tannates.

Exterior surfaces are prepared using various methods, depending on the condition of the wood:

- ▶ If the wood has not weathered and appears generally clean and consistent: wash the surface with two cups per gallon *Log Wash* solution and a pressure washer, within four days of staining. Follow label instructions.
- ▶ If there are signs of gray, weathered wood, restore with *Wood ReNew* and a pressure washer. Follow label instructions. Contact Perma-Chink Systems for additional information.
- ▶ If there are dark streaks or discolorations on the surface such as rust stains from bands, restore wood with a solution of *Oxcon* oxalic acid on the entire wall (avoid spot cleaning) according to label directions. Carefully follow label instructions. Contact Perma-Chink Systems for additional information.

Note for log siding and milled logs: Milled logs and log siding may be milled to a very smooth finish. If so, it often has mill glaze at the surface. If mill glaze is not removed, your exterior stain will not adhere properly to the surface. Mill glaze can be removed by using *Wood ReNew* according to the label instructions. Contact Perma-Chink Systems for additional information.



Dark colored streaks from metallic tannates. *Oxcon* solution will remove rust stains caused by nails, screws and fasteners.



EXTERIOR - EXISTING CONSTRUCTION

LIFELINE RE-COAT:

If the existing LIFELINE finish is in good condition and a re-coat is in order, wash the surface with a two cups per gallon *Log Wash* solution and garden hose (pressure washing is not recommended) within four days of staining. Follow label instructions. Allow to dry and you are ready to apply LIFELINE.

OTHER STAINS RE-COAT:

Application of LIFELINE over another manufacturer's coating may work, however, we just cannot be sure of long term performance. In this situation, we recommend that you remove old finishes as part of your preparation procedure.

Techniques for Removing Old Finishes

There are numerous methods for removing your old finishes. Each method has its benefits and drawbacks. The most common methods are:

Power Washing

Is familiar to most people. The drawbacks of using a power washer involve the integrity of the sealant system in the house (it must be good enough to prevent water intrusion to the interior) and potentially raising surface grain. Water intrusion can be managed by having someone inside the house with enough towels and rags to wipe up water as it comes in.



We recommend that you follow up power washing with light sanding or buffing with *Osborn* brush to remove loose grain ("feathering") caused by power washing.

Always use power washers at the lowest pressure to reduce the risk of damaging the wood surface. We also recommend that as the final step before LIFELINE application you perform a cleaning with *Log Wash* per label directions to remove any debris left from power washing.

Media Blasting

Using sand, recycled glass, walnut shells, corn grit, soda or dry ice. Each of these media types has its trade-offs as compared to the others.



Since media blasting opens surface porosity and leaves small particles embedded in wood surfaces some work after the blasting procedure becomes necessary. This can include buffing out with sander or *Osborn* brush and a cleaning with *Log Wash* to removed embedded media.



BEFORE BUFFING



AFTER BUFFING

Use *Prelude™* as a primer on media blasted surfaces to even out the color and prevent the color from being considerably darker due to porosity.

Sanding

Exterior sanding should always be done with sandpaper that is 80 grit or coarser to ensure the best performance of your finishes. After sanding is complete wash all dust away with a *Log Wash* solution, following label instructions.



Chemical Stripping

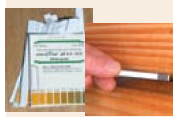
Involves the use of chemicals and the precautions associated with those chemicals. Strippers do not actually remove finishes, but soften them to allow you to easily remove them, usually with a pressure washer. Strippers have different dwell times, which vary significantly with ambient temperature (they work more slowly in lower temperatures.)



Perma-Chink Systems carries strippers that are as environmentally and user friendly as we can find.

Avoid finish removers containing potassium hydroxide or sodium hydroxide because they have extremely high pH that disrupts the chemistry of wood and can cause discolorations underneath new finishes, sometimes long after application. Which ever stripper you choose, be sure to have us ship samples to your jobsite to see how effective they are. Always follow label instructions carefully. Contact Perma-Chink Systems for more information.

CHECKING WITH PH PAPER



Continue rinsing any cleaning solution with water until the pH of the run-off water of the wall measures 6.8 - 7.4.

LIFELINE™ - GETTING IT ON THE WALL

General Application

- ▶▶ Allow the surface to dry before applying the first coat of finish.
- ▶▶ Stir LIFELINE thoroughly at the start and periodically during use – every 10 minutes. If your sprayer has a re-circulator, run it periodically.
- ▶▶ If you are using a sprayer, set it up according to manufacturer's instructions. We recommend tip size .015 or .017.
- ▶▶ Apply LIFELINE with sprayer or brush. NEVER use roller for application. After application, immediately brush wet LIFELINE to even out the application and work fresh LIFELINE into the wood surface and into exposed checks.
- ▶▶ During back-brushing, if your brush is building up LIFELINE or there are runs that you cannot brush out, then lower your application rate. OBSERVE PROPER COVERAGE RATES for best performance and appearance.
- ▶▶ To avoid lap marks, continue to apply LIFELINE working systematically across 1 or 2 courses of logs so that you are able to always work from wet edges across fresh surfaces to a planned break point. Never stop in the middle of a log or work area.
- ▶▶ Make sure the finish is dry to the touch before application of subsequent coats. In dry conditions, this could be as little as one hour. In cool weather and high humidity, the drying time extends considerably.
- ▶▶ In most conditions, LIFELINE dries quickly enough to allow you to apply multiple coats in a single day.
- ▶▶ As you start a subsequent coat, watch to see that as you back-brush the new coat the first coat does not soften and roll up in the brush stroke. If it does, stop immediately and allow more drying time.
- ▶▶ Clean application equipment with fresh water and soap. LIFELINE that has recently dried can usually be removed using alcohol or mineral spirits.



MAINTENANCE

Periodic cleaning of exterior walls is important to prolong the life of your exterior finish system and to maintain the best appearance. *Lifeline Advance* clear coats help reflect sunlight, which reduces the amount of UV that gets through the semi-transparent coating to the wood surface. Keeping the surface free of dust and other contaminants maintains this reflectance.

The exterior of your house is easy to wash with *Log Wash* solution. Simply mix according to the label instructions, apply *Log Wash* to the wall with an inexpensive pump up sprayer, brush lightly if needed and rinse with a hose-end mist sprayer. See our *Log Wash* label for complete instructions.

If the wood underneath the finish begins to darken when you wash it, it is probably time to refresh your *Lifeline Advance* topcoat.



FINISH REPELS WATER

For more detailed questions about exterior maintenance contact any Perma-Chink Systems branch.



FINISH LOST IT'S WATER REPELLENCY

LIFELINE™ - STAINS and FINISHES

YOUR WOOD CARE RESOURCE



Lifeline Ultra-7™

Premium exterior one coat stain.
One coat - 300-400 sq.ft. per gallon.



Exterior

Lifeline Ultra-2™

Premium exterior two coat stain.
1st coat - 350-450 sq.ft. per gallon.
2nd coat - 600-800 sq.ft. per gallon.



Exterior

Lifeline Accents™

Trim and accent color stain.
1st coat - 350-450 sq.ft. per gallon.
2nd coat - 600-800 sq.ft. per gallon.



Exterior and Interior

Lifeline Exterior™

Exterior stain.
1st coat - 350-450 sq.ft. per gallon.
2nd coat - 600-800 sq.ft. per gallon.



Exterior

Lifeline Advance™

Exterior clear topcoat.
800-1000 sq. ft. per gallon over
LIFELINE color coats.



Exterior

Prelude™

Sealer for porous wood surfaces.
200 to 400 sq.ft. per gallon
depending on the porosity of the
wood.



Exterior and Interior

Lifeline Interior™

Interior stain.
1st coat - 350-450 sq.ft. per gallon.
2nd coat - 600-800 sq.ft. per gallon.



Interior

Sure Shine™

Clear topcoat for floors and millwork.
600-800 sq.ft. per gallon over Lifeline
Interior, Lifeline Accents or Prelude.
700-900 sq.ft. per gallon on
subsequent coats.



Interior

Lifeline Acrylic™

Clear topcoat for walls and millwork.
600-800 sq.ft. per gallon over Lifeline
Interior, Lifeline Accents or Prelude.
700-900 sq.ft. per gallon on
subsequent coats.



Interior

Log End Seal™

Clear sealer for exposed log ends.
30-40 sq. ft. per gallon. One gallon
will coat approximately 180 logs with
6" diameter.



Exterior

Protects exposed
log ends

TOOLS

- Ladders, ladder jacks and other equipment as necessary.
- Electric drill and paint mixer.
- Airless sprayer with 0.015 or 0.017 spray tip.
- High quality paint brushes.
- Clean rags.
- Water bucket.



Company Stores

Washington/Western Division

Redmond, WA 98052
1-800-548-1231

Tennessee/Eastern Division

Knoxville, TN 37914
1-800-548-3554

Tennessee

Sevierville, TN 37862
1-865-774-3307

Minnesota Branch

Rice, MN 56367
1-877-244-6548

Colorado Branch

Rifle, CO 81650
1-800-433-8781

Montana Branch

Stevensville, MT 59870
1-800-479-7090

Pennsylvania Branch

Petersburg, PA 16669
1-800-257-4864

Stocking Distributors

Canadian Log Home Supply,
Central & Eastern Canada
1-800-746-7773
www.canadianloghomesupply.com

Brock White Canada
Western Canada
1-877-846-7506
www.brockwhite.com

Log Home Center,
Indiana
1-800-773-6223
www.loghomecenter.com

Timeless Wood Care Products,
Michigan
1-800-564-2987
www.timelesswoodcare.com

For more info visit us on
www.permachink.com