

# Perma-Chink Systems News

## Spring Cleaning

## The Log Home Care and Maintenance Authority



Happy  
St. Patrick's Day!

### Dear Readers,

The 2006 is already bringing lots of excitement for us and our customers. This Spring we are introducing two new products you have been waiting for. A **new deck finish** is finally here! (Read more on page 3) We also have a finish removal product for professionals. But the most exciting news is our **Warranty for Lifeline Ultra-2 and Lifeline Advance System!**

### Exciting News!



Read more on page 7

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[www.permachink.com](http://www.permachink.com)

## Serving the Log Home and Timber Home Industry for a Quarter Century!

When Rich Dunstan looks at a log home he sees high technology. Rich Dunstan is the founder and president of Perma-Chink Systems, Inc. For 25 years, Perma-Chink Systems has been manufacturing and distributing high performance building materials to the log home and timber home industry.



The company stakes its success on polymers, the microscopic building blocks of plastics and high performance elastomeric sealants and finishes. Polymer formulation provides the capability to formulate and manufacture products with unprecedented performance qualities. "Polymers are to the chemical industry what microchips are to the electronics industry," says Dunstan, who was an electronics engineer until he began devoting full time to Perma-Chink Systems, Inc. over 20 years ago.

"To prevent air leaks and moisture intrusion, builders through the years have stuffed everything from straw and cow dung to cement mortar to seal the gaps between logs of log houses," Dunstan explains. "But since logs shrink in diameter as they adjust to local humidity, and continually shrink and expand throughout seasonal changes, the traditional inflexible "chinking" material cracked and it had no adhesion to the logs. Perma-Chink® chinking was the original synthetic chinking material that solved this challenge by adhering extremely tightly to the logs and remaining elastic throughout the life of the home, while still preserving the look of traditional mortar.

Perma-Chink Systems also introduced the revolutionary Energy Seal® sealant for milled log homes. Energy Seal blends in perfectly with the solid wood log walls and provides a hidden seal to supplement the grooved or splined system typical in this style of home.

In the early 1980s, Rich Dunstan developed a product that he felt the log home industry had been missing – a chinking material that was flexible and created a permanent barrier against leakage and air infiltration. This product, Perma-Chink log home chinking, revolutionized the handcrafted segment of the log home industry and has since grown into a complete line of products formulated solely for the log home and timber home industry.

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Over the years, the company has developed an entire family of high performance products that seal, chink, preserve, stain, finish and clean the interior and exterior wood of handcrafted and manufactured log homes.

Perma-Chink Systems is proud of its 25 year history of the best customer service in its industry. Our history of new product development and introduction proves our single-minded dedication to making log homes the easiest kind of custom home to own and maintain. Our customers have been extremely pleased with our latest major product introduction – the **Lifeline Ultra-2 and Lifeline Advance** exterior finish system. This newest exterior finish system is simple to apply and maintain and it is so durable that it's now covered by a 5-year performance warranty. *(Read about Warranty on page 7)*

**Lifeline Ultra-2 followed by a clear topcoat of Lifeline Advance™ Gloss or Satin creates the most advanced wood finish system in existence.**

Lifeline Ultra-2 and Lifeline Advance are environmentally friendly. "We are very concerned about the environment and the safety of the people that use our products," says Rich

Dunstan. We have more experience in formulating highly specialized products for log homes than anyone in the industry.

Today, Perma-Chink Systems has offices and distribution centers throughout US, Canada, Europe and Far East. The Company has its own plant and laboratory, staffed with chemists, who devise formulas for the products. "Pretty much everybody in the industry has heard of Perma-Chink", says Dunstan, adding that the company's products grace the log houses of such noted Americans as former President Jimmy Carter, businessmen H. Ross Perot and Boone Pickens, clothing designer Ralph Lauren, mountain climber Jim Whittaker and singer Barbara Mandrell's 20,000 square-foot home.

Perma-Chink Systems is proud to celebrate a quarter century of service to the log home and timber home industry with the largest line of environmentally conscious high performance sealants, stains and preservatives. Log home manufacturers, dealers and log home owners are really excited, because now they can confidently source all their finish and preservative and maintenance needs from one company – **Perma-Chink Systems, Inc.**



## **EAZY STRIP™** Professional Finish Remover

One of the most important attributes of Perma-Chink Systems is our commitment to constantly improving our product line. Our new EAZY STRIP Professional Finish Remover is a low environmental impact, water-based solvent that removes most oil and water-based stains and topcoats.

EAZY STRIP contains no harsh chemicals, is biodegradable and non-flammable and, unlike caustic strippers, EAZY STRIP will not darken nor discolor the wood.

EAZY STRIP has a paste-like consistency and although it can be sprayed onto the surface, it is most easily applied with a short bristled brush or paint roller.

After 15 to 20 minutes, the finish will be soft enough to remove with a pressure washer. EAZY STRIP can be used to remove most paints and stains from logs, siding and deck surfaces. Give us a call for a sample of our new EAZY STRIP Professional Finish Remover.



## LIFELINE *Endure*™

For Decks, Porches, Railings,  
Posts and Fences

## Water-Based Transparent Deck Finish

**Finally!** After two years of formulation work and testing we have developed a water-based finish system specifically designed for use on decks, porches, railings, posts and fences.

Lifeline Endure Deck Finish is a two coat stain that protects decks from water and snow while providing outstanding resistance to graying due to UV radiation. This low environmental impact formulation is scuff and abrasion resistant but does not get slippery, even when wet. Being a complete finish system there is no need to apply other products over Endure Deck Finish.

**Why are we so excited about Lifeline Endure?** Just about every deck stain currently on the market is oil-based. Decks have been a major market for oil-based stain manufacturers for many years. Recent state and federal requirements have mandated lower VOC (volatile organic compounds) levels in coating products. Rather than developing low VOC water-based formulations, most deck stain manufacturers have altered their oil-based formulas (with an accompanying decrease in performance) to comply with these new regulations.

Why don't they change to water-based systems? Probably because they do not have the experience or technology to develop a good performing water-based deck product. They have also spent millions of dollars on equipment and plants designed to handle petroleum based solvents which makes it difficult to convert to water-based systems.

On the other hand Perma-Chink Systems has been manufacturing water-based transparent stains since 1987. With our long history, experience and technical expertise we have been able to develop a water-based deck finish that is truly unique. Lifeline Endure echoes our commitment to our customers to provide only the highest quality products.

Available in five beautiful colors, the thing you'll like best about Lifeline Endure Water-Based Deck Finish is its durability compared to other deck stains you may have used in the past.

One gallon of Lifeline Endure Deck Finish will cover approximately 150 to 200 square feet for the first coat on unfinished wood depending on wood type and porosity. The second coat will cover approximately 40% more or about 250 to 350 square feet per gallon.

- Scuff and abrasion resistant.
- Does not get slippery when wet.
- Excellent color retention.
- Environmentally friendly.
- Outstanding resistance to graying due to UV radiation.
- Protects the wood from water and snow.
- Reduces board cupping, splitting, warping and twisting.
- Easy to apply with brush or pad.
- Soap and water clean-up.





## Spring Cleaning:

### ■ Removing Old Exterior Finishes

By Vince Palmere

Now that winter is over it is time to start thinking about what maintenance you need to do in and around your home.

There comes a time in the life of any log home that you may need to remove the remnants of an old exterior stain and get back to bare wood in preparation for applying a new, fresh finish. Thankfully this does not occur very often assuming you used quality Perma-Chink products. But even the best finishes may look dingy after years of exposure to dust, sun, wind and rain.

There are basically two types of finish removal systems, mechanical and chemical. Every method of removing old finishes has its benefits and its tradeoffs. Some of the factors that are mentioned in this article involve the use of water, the risk of damaging the wood surface with chemicals, high pressure water, high velocity corn media and the labor of sanding.

Whenever you start a finish removal project, consider the total labor and especially your personal safety when using any of these techniques. We are happy to assist you with your stain removal decisions. Remember that the quality of your preparation ultimately determines just how good that new coat of stain looks on your refinished house.

### Pressure Washing

A few years ago pressure washing was the only way to go when it came to removing old finishes. With the introduction of media blasting some people began to consider pressure washing as secondary, inferior method of finish re-



moval. In point of fact, **pressure washing is still an excellent cleaning method for many situations!**

One reason is that you can control the aggressiveness of the cleaning process and thus avoid severe surface pitting and raising grain. And when used in combination with chemical cleaners, pressure washing can do a remarkably good job in removing an old finish from the wood.

When selecting a pressure washer there are some features to look for. One of the most important features is adjustable pressure. Also it should be able to put out at least three gallons of water per minute (3 gpm). A lower output volume tends to move the degraded stain and wood fibers down the wall but does not wash them off of the wall.

A good pressure washer typically generates 2500 to 3000 pounds of pressure (psi) but that does not mean that you need that much pressure to clean the surface. Always use the lowest pressure setting that will do the job for you. The higher pressure allows you to clean off a wider swath with each pass of the wand tip. For removing old finishes we recom-

mend using a 15 degree fan tip or an adjustable nozzle if it's available.

One more thing about pressure washers, don't try to run a cleaner or stripper through the pressure washer. Apply the cleaning solution separately, allow it to work on the surface for a few minutes, then use the pressure washer to wash it off.

If you use a pressure washer you will definitely test the sealant system of a home. Water will undoubtedly enter somewhere so have someone inside to look for water entry points and mark those spots for later inspection and sealing. Lastly, be sure to let the wood dry out before applying sealants, stains or preservatives.

### Media Blasting

Over the past few years media blasting has become a popular method for removing old finishes. Our Blaster-Buddy is a state of the art unit that uses corncob grit to strip away existing finishes. It is fairly easy to use and somewhat quicker than a pressure washer and avoids the problem of water entry.

Media blasting takes some practice. Like a pressure washer, it's very easy to gouge the wood if you point the nozzle in one place too long. Media blasting is a practical cleaning tool for log homes but it is not the answer for every situation. Use it, but use it wisely.



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## Sanding

Hand sanding can produce the smoothest and most attractive log surface. It is time consuming and a lot of work. If used in combination with pressure washing much time can be saved and the end result can be a smooth, clean surface. No matter how you look at it, sanding can be a lot of work.

Perma-Chink Systems carries a line of buffing brushes and sanding pads that really make sanding easier and quicker. One note about sanding, never use steel wool. It leaves fine particles on the wood that will cause rust spots under the stain.

## Chemical Strippers and Cleaners

Although pressure washing usually does a good job removing old stain prior to the application of a new finish it is often necessary to use it in combination with a chemical stripper or cleaner, especially under the porches and overhangs where the old finish may still be in fairly good shape.

Our Wood ReNew™ does a pretty good job in removing old, tired stains. If you need something a bit stronger, try our new Eazy Strip™ Professional Finish Remover. When used in combination with a pressure washer it removes most oil and water-based stains with ease. But before you place an order, get a sample and give it a try.

When using any stripper or cleaner, plan on working on small areas at a time. Start at the bottom and work your way up applying the product according to the directions on the label. You may have to leave the product on the surface for a

while in order to give it time to work.

Be aware that the warmer the temperature the quicker the stripper or cleaner will work. Once the finish has sufficiently softened, use the pressure washer to remove the residue starting at the top and rinsing down. You will find that combining a chemical stripper or cleaner with a pressure washer can give you great results.

## Rinsing, The Most Important Step

It is very important to completely rinse off any chemical that has been applied to the wood. The number one cause of blotches and premature stain failure is inadequate rinsing after using cleaning or stripping chemicals. Rinse until you think it's enough, then RINSE IT AGAIN! How can you tell if you have adequately rinsed the wood? The best method is by using pH strips available from Perma-Chink Systems or at many pool supply centers.

Once you have rinsed the logs, spray a little clean water on the wood and let it drip onto the pH strip. If the pH reads between 6.5 and 7.5, you have probably rinsed the wood enough. However, if the pH is higher than 9.0 or lower than 6.0, you need to continue rinsing.

## Are You Ready to Stain?

Not necessarily. Although we put mildewcides into our exterior stains they are designed to inhibit the growth of mold and mildew on the surface of the stain. If the wood is contaminated with dirt, pollen and mold spores prior to applying the stain there is a chance of mold

formation under the stain that is difficult if not impossible to remove.

If your home has been media blasted you should really wash down the wood with a three parts water to one part bleach solution, rinse it off and let it dry before you stain. Why? If you take a close look at the blasted surface you may find some media particles imbedded in the wood. Along with the particles are mold spores that can germinate and feed on the corn cob grit. To avoid future mold spots from developing, you need to kill the mold spores by sterilizing the surface with the bleach solution. Washing down the blasted surface will also remove dust that may still be adhering to the wood.

On the other hand most chemical strippers and cleaners do a good job eliminating mold spores. However, if for some reason the stain application is delayed more than four or five days after the wall has been chemically cleaned, an application of a three parts water to one part bleach solution should be made, rinsed, and allowed to dry before the stain is applied. It only takes a few days for enough mold spores, pollen and dirt to accumulate on the bare wood to create a problem later on.

The final appearance of a new coat of stain is only as good as the surface you start with. Remember **LIFELINE** stains are **TRANSPARENT** allowing the grain and character of the wood to show through. So you need to start with a clean, bare surface for maximum performance and ultimate beauty.

**If you would like a referral to an experienced contractor to perform an inspection or to help you with your log home project, contact your nearest Perma-Chink Systems, Inc. location.**

## EPS Melts:

### ■ *Discovery After Extensive Testing*

*By Terry Hofrichter*

**EPS (Expanded Polystyrene or Styrofoam)** backing behind the chinking melts and shrinks when exposed to high temperatures.

We've performed extensive testing in a thermal chamber to find out what causes EPS to melt.



Our investigation started by searching for any offending chemical compounds in our formula that may cause EPS to dissolve. During the process, we also tested competitive chinking products to see how they compared. We found that the competition's chinking demonstrated the same problem.

Initially we assumed that this phenomenon was caused by one or more chemical constituents in synthetic chinking so we tested the ingredients individually and in combination to observe their effect on EPS. We then started looking at just the foam itself. To our surprise we found that the EPS began to melt at about 170°F with just about anything that we put on it including dry pigment.

As it turns out, EPS is manufactured by injecting loose, unexpanded foam beads that contain liquid pentane into a mold at about 200°F. Under these conditions, the beads expand to about 30 times their original volume and form what you and I call Styrofoam. The manufacturer specifies Styrofoam be used at temperatures below 167°F.

We know from our own experience that walls exposed to intense sunlight can get much hotter than that. It may be that we (and our competitors) have been fortunate for all of these years in not seeing this problem more than we did. But this past summer was the hottest on record and the problem was brought to our attention.

It is obvious that this problem will be more severe whenever dark colored chinking is used and less severe with light colored chinking.

We have not yet found any type of EPS or Styrofoam with a heat tolerance higher than 167°F. The largest manufacturer of foam that we know of voids their warranty if the foam is subjected to temperatures above this level. Perma-Chink Systems does not manufacture or sell EPS backing products.

We continue to search for a better performing backing material but until we find one, we encourage you to follow your manufacturer's recommendations. Thankfully, we have not seen this problem with our **Backer Rod** or **Grip Strip**.

### Company Stores

#### Washington/Western Division

Redmond, WA 98052  
(425) 885-6050  
1-800-548-1231

#### Tennessee/Eastern Division

Knoxville, TN 37914  
(865) 524-7343  
1-800-548-3554

#### Sevierville, TN Branch

Sevierville, TN 37862  
(865) 774-3307

#### Minnesota Branch

Rice, MN 56367  
(320) 393-3088  
1-877-244-6548

#### Colorado Branch

Rifle, CO 81650  
(970) 625-1966  
1-800-433-8781

#### Montana Branch

Stevensville, MT 59870  
(406) 642-3544  
1-800-479-7090

[www.permachink.com](http://www.permachink.com)

### Stocking Distributors

#### Canadian Log Home Supply, Central & Eastern Canada

1-800-746-7773  
[www.canadianloghomesupply.com](http://www.canadianloghomesupply.com)

#### Hess Log Home Supplies, Pennsylvania

1-800-257-4864  
[www.hessloghomesupplies.com](http://www.hessloghomesupplies.com)

#### Log Home Center, Indiana

1-800-773-6223  
[www.loghomecenter.com](http://www.loghomecenter.com)

#### Steels Industrial Products, Ltd., Western Canada

1-877-846-7502  
[www.steels.com](http://www.steels.com)

#### Timeless Wood Care Products, Michigan

1-800-564-2987  
[www.timelesswoodcare.com](http://www.timelesswoodcare.com)

## What's New with Lifeline Ultra-2™?

Now with a



It Just Can't Get Any Better!!!

Perma-Chink Systems has been in the waterborne exterior finish business for decades. Like every other finish manufacturer, we are acutely aware that federal and state environmental regulations are slowly but surely squeezing oil-based finishes out of the market. While this is a great step for the environment, it is forcing changes that have reduced the performance of oil-based stains. In contrast, waterborne transparent stains have evolved to dramatically increase their durability and performance.

Perma-Chink Systems has been working diligently for many years to introduce finishes that are environmentally friendly, easy to maintain, long-lasting and highlight the true beauty of wood. The **Lifeline Ultra-2 with Lifeline Advance** system is a quantum leap forward in performance of exterior transparent finishes, whether they are oil-based or waterborne. It has the beautiful look that you expect of **Lifeline** finishes. It is easy to apply and clean up. Best of all, it has the highest durability of any finish that we have evaluated in our test facilities.

Ever since we began testing on **Lifeline Ultra-2 with Lifeline Advance** topcoat on lab exposures, outdoor test panels and test buildings, we've been amazed at the durability of this latest state-of-the-art waterborne finish system. We started our testing with **22 different finishes from 14 different manufacturers**. We chose the most popular, high quality stains in our markets. Our ongoing test exposures show that **Lifeline Ultra-2 with Lifeline Advance** finish system is the most durable finish of all of these transparent stains.

So, Perma-Chink Systems is proud to introduce a limited warranty for this newest exterior stain and finish system. **Lifeline Ultra-2 with Lifeline Advance** clear topcoat is the highest performing, best looking exterior stain system available to homeowners today. Perma-Chink Systems is backing up this high performing finish system with a **5 year** limited warranty. The terms of this warranty are simple. When you apply **Lifeline Ultra-2** and a clear topcoat of **Lifeline Advance** to properly prepared wood on your house and return the warranty forms to Perma-Chink Systems, you are automatically covered for the first three years of the stain life. To extend the warranty to a full five-year period, you must apply an additional coat of **Lifeline Advance** at any time during those first three years (including at the initial application, if you like). Your exterior is then warranted for five years by the best looking exterior finish system available and will continue looking great for years to come.

If you haven't tried **Lifeline Ultra-2 and Lifeline Advance System**, you owe it to yourself to see just how good it is. Call your nearest Perma-Chink Systems office today and ask for samples to see just how it shows off your wood.





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Redmond, WA 98052  
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Spring 2006

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Issue #1

## The Log Home Care and Maintenance Authority

# Don't Miss Out FREE

### Application Workshops/Seminars

### Spring 2006:



Member of:



April 8	Sevierville, TN
April 8	Fairbanks, AK
April 15	Anchorage, AK
April 22	Rifle, CO
April 29	Redmond, WA
May 6	Sevierville, TN
May 20-21	Irasburg, VT
May 20	Noblesville, IN

Free samples of many of our products are available upon request. Call your nearest Perma-Chink Systems Store  
**ALL PRODUCTS ARE ENVIRONMENTALLY FRIENDLY!**

### Perma-Chink Systems Free 2006 Product Catalog

order on line at:

[www.permachink.com](http://www.permachink.com)

Coming soon  
to your mail  
box!

Scheduled for  
delivery on April 14

### Come See Us at these Log Home Shows

### 2006

March 17-19	Orlando, FL
March 24-26	Albuquerque, NM
March 31-April 2	South Charleston, WV
March 31-April 2	Portland, OR
March 31-April 2	Louisville, KY
April 21-23	Hartford, CT
May 5-7	Pittsburg, PA

Visit our website for more information