

How To Apply Energy Seal and/or Woodsman

Although Energy Seal and Woodsman come in different colors and both may be used for a multitude of purposes, the proper application of these products are similar. One of the main differences between Energy Seal and Woodsman is the surface texture. Energy Seal contains a fine aggregate that gives it a texture, whereas Woodsman has a much smoother surface. The texture of Energy Seal enables it to (1) match the texture of wood more closely and (2) accept a stain to blend in with the stained wall color if so desired. Although Woodsman is also stainable, it will not become as indiscernible as Energy Seal.

Energy Seal and Woodsman are usually recommended for use in joints, seams and gaps that are one inch wide or less. Although they can be used in wider joints, we typically recommend using Perma-Chink Log Home Chinking for wide joints. The following application directions and conditions are applicable to both Energy Seal and Woodsman but for simplicity we will only refer to Energy Seal or the generic term “sealants.”

When should Energy Seal be applied?

The best time to apply Energy Seal is after the home has been cleaned and before the finish is applied. The wood surfaces will be fresh and clean. Energy Seal adheres best to clean, dry undamaged bare wood surfaces. That is not saying that it will not adhere to stained and/or top-coated surfaces, but it adheres best to bare wood. Applying to surfaces with a recently-applied oil-based stain should be avoided. For the least visible caulk lines, choose a color that is a shade lighter than the stain color you plan to use. It is easier to cover a lighter color sealant with a darker color stain than it is to hide a dark colored sealant with a light-colored stain. However, if you prefer the look of visible caulk lines, apply Energy Seal after you stain. Just be sure that the surface is clean and dry.

If you are going to apply Lifeline Advance Topcoat, apply the topcoat after the Energy Seal. This results in a more even appearance to the sealed areas and helps them blend in with the rest of the wall. Furthermore, it helps keep the Energy Seal clean and free of debris. Also, it makes it easier to clean when maintenance cleaning is required.

Using Backing Materials

Backing materials furnish an even surface for the application of a sealant and make it easier to apply a uniform thickness across the joint or gap. They also provide two-point adhesion to ensure maximum elasticity and flexibility after the sealant has cured (sealants do not adhere well to the backing material). The use of improper or poorly installed backing materials can result in unsightly sealant joints and substandard performance. They are an integral part of the sealant system and should always be used whenever and wherever possible.

There are a number of products specifically designed for use as backing materials for sealants. For smaller gaps, joints and cracks, the most commonly used material are round backer

rods. They come in a variety of sizes and are inexpensive. Since they are flexible, they can be pushed into a crevice without needing to be nailed or stapled. For larger gaps, Grip Strips are utilized. Similar in composition to backer rods, but trapezoid shaped to fit between round logs, providing a flat surface for chinking and sealants.

In situations where a joint or gap is too small for a proper fit, the Backer Rod can be held in place by applying small dabs of Energy Seal along the seam and then pressing the Backer Rod into the sealant. The dabs of Energy Seal will hold the Backer Rod in place while the proper thickness of Energy Seal is applied. An alternative to a Backer Rod is a narrow strip of water-resistant masking tape. Non-water resistant masking that wrinkles when wet will show through the sealant and should not be used. For extremely narrow seams an excellent choice is pinstripe tape available at automotive supply stores. The tape is waterproof and sealants will not adhere to it. Pinstripe tape is available in widths down to 1/8".



Attaching Backer Rod



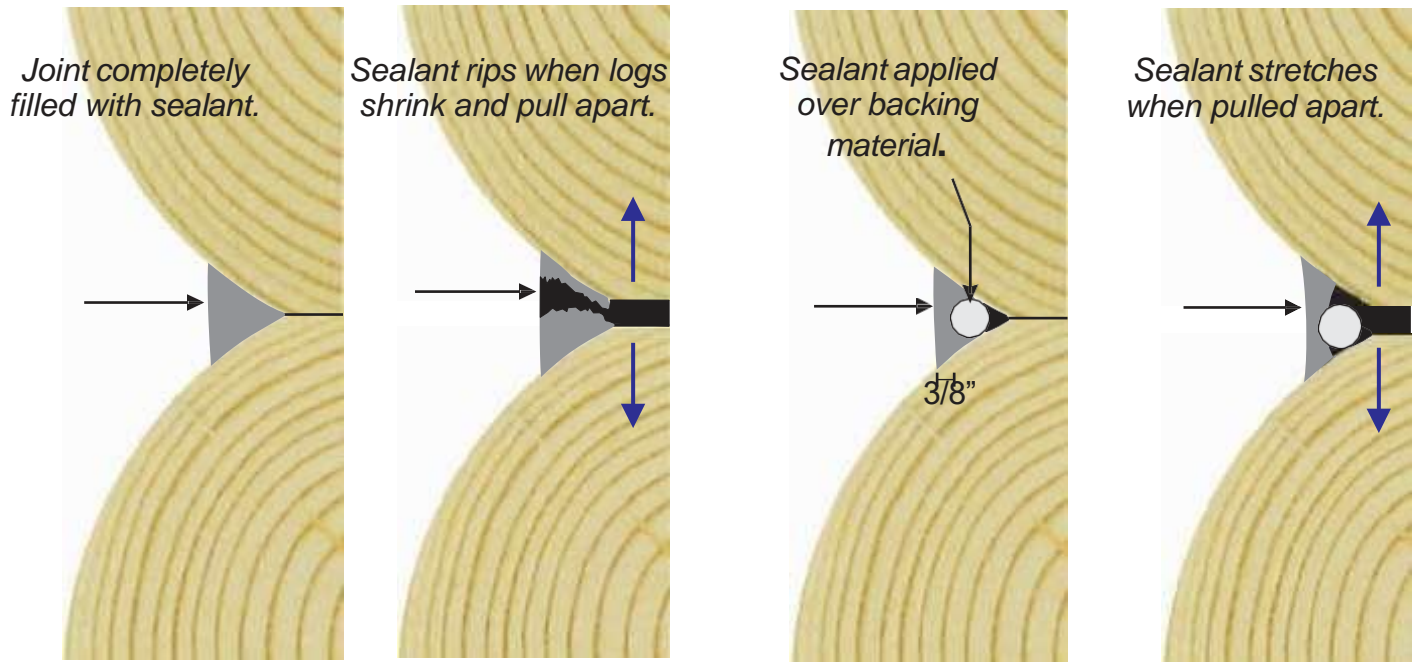
Sealant applied to a narrow seam without backing material.

Approved Backing Materials

- Log Gap Cap
- Grip Strip
- Backer Rod.
- Expanded polystyrene (EPS) beadboard
- Polyisocyanurate board (Polyiso or R Max).
- Water-resistant masking tape or pinstripe tape.

DO NOT USE

- Extruded Polystyrene, XPS (causes blisters).
- Blue Board, Pink Board or any other colored board (outgases and causes blisters).
- Barewood or strips of bare wood (outgases and loss of elasticity, 3-point adhesion).
- Polyurethane foam (PurFill, GreatStuff, etc.).
- Foil Faced Substrates (sealants will adhere well to the foil)
- Anything that you are unsure about check with Perma-Chink Systems before using it.



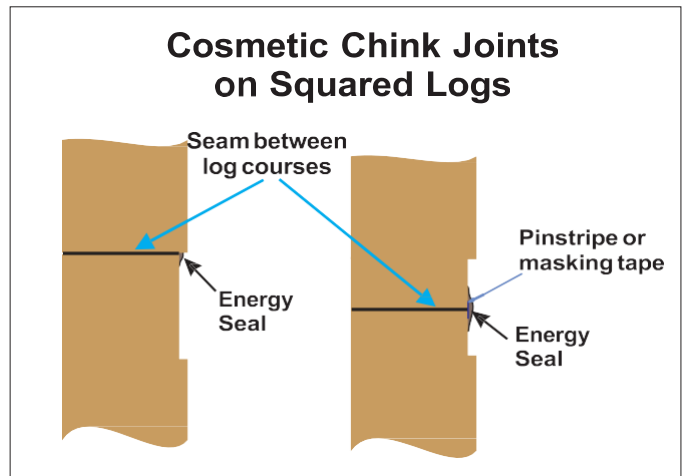
The role backing materials play when sealing a seam

Round Logs

When determining the width of a sealant joint between round logs, a good guideline is for the width of the sealant to be one-sixth the log diameter. For example, with six-inch diameter logs, $6'' \div 6 = 1.0''$ wide sealant joint. The width of the backing material required will also depend on the profile of your logs. You need to consider that you will be applying a $3/8''$ thick layer of sealant over it and need at least $1/4''$ contact on top and bottom for adequate adhesion to the wood.

Squared Logs

We rarely see squared log chink joints less than 2" wide, so Energy Seal or Woodsman is seldom used in these situations. However, for cosmetic chink joints less than $3/8''$ deep we recommend sealing the seam with Energy Seal and then applying Chink Paint over the entire joint. Other areas on squared logs Energy Seal is used, include sealing corners, butt joints, widows, door frames and other areas where a visible chink joint is not desired.



Applying Energy Seal or Woodsman

The overall performance of any sealant system is dependent on the use of proper application methods. Any sealant must be applied in a manner that will allow it to stretch in order to compensate for log movement. If it is applied too thick, once it cures, it will not be able to stretch enough to compensate for the movement and may tear away from the wood (adhesive failure) or split down the middle of the joint (cohesive failure). Think of it like a rubber band. A thick rubber band will not stretch as far as a thin one. However, if the rubber band is too thin, it will break when it is stretched. The same thing applies to sealants. If applied too thick, they can not stretch, and if too thin, they may be weak and tear when pulled apart. In the case of our sealants the magic number is an applied wet thickness of $3/8''$. When cured this results in the best elongation with maximum strength.

Have the Proper Tools

Before you start have all the tools that you will need at hand and be sure that they are clean and in good working order. These may include:

- Caulk gun
- Bulk loading gun.
- Rags.
- Trowels and/or spatulas.
- Plant mister with water.
- Masking tape.

Weather Conditions

Freshly applied sealants should be protected from direct rainfall for a minimum of 24 hours. Check the weather forecast or drape a newly sealed wall with plastic film. Be sure to allow air space between the wall and the plastic to facilitate drying. Avoid applying sealants in direct sunlight or when the temperature is less than 40° F. In cold weather it is important that the logs be free of frost and dew to ensure that the sealant adheres tightly to the wood. The best surface temperature range for easiest application and best results is between 50° F and 80° F.

Application

Cut the applicator or tube tip to the desired diameter of the sealant bead you wish to apply.

Step 1: Begin by holding the tip firmly against the seam or joint and apply a bead of sealant. You need to apply enough sealant to maintain a wet thickness of at least 5/16" and no more than 1/2" (target = 3/8") across the entire seam or joint after tooling. Only apply as much sealant as you can tool smooth in about 15 minutes.



Step 1



Step 2

Step 2: Once the joint is filled trowel it to approximately 3/8" thick across the entire joint. Do not spray it with water at this time! Make sure there is good contact between the sealant and the exposed edges of the wood. The most difficult areas to tool are the corners. There is a tendency to drag the product out of the corners resulting in the sealant becoming too thin. To ensure the proper thickness of the sealant is being maintained, use a toothpick to check the thickness of the sealant.

Step 3: Once the sealant is roughly in place and entrapped air worked out, spray it with a light mist of water. Do not saturate the surface with water. If water begins to run down the wall, you have applied too much.



Step 3



Step 4

Step 4: Tool the surface smooth with a trowel or spatula. If you used masking tape to protect the surrounding wood, remove it as soon as you are finished tooling. Also, make sure that you have not left any lip on the top edge of the sealant that may catch water.

Sealing Window & Door Frames



Cut triangular blocks of EPS or Polyethylene foam or use Log Gap Cap™.



Insert Log Gap Cap into void between logs and frame. Leave 3/8" gap between surface of foam and edge of frame.



Apply masking tape to prevent sealant from smearing onto the adjacent logs.



Fill the 3/8" gap between the surface of the foam and the edge of the frame with sealant.



Rough tool sealant into place then lightly spray surface with water and tool smooth.



Remove the masking tape.

Clean-Up

If any sealant gets on the surface of the wood, be sure to wipe it off with a wet rag as soon as possible. If allowed to dry, it will almost be impossible to completely remove. Make sure to clean your tools and equipment with clean water occasionally during application. Dried sealant is difficult to remove from just about anything including clothes.

Drying and Curing

Drying time and curing time are two different terms. In warm or hot weather, Energy Seal and Woodsman may begin to skin over in as little as ten minutes, the drying time. Complete curing may take a couple of weeks to a few months. Cooler temperatures and high humidity will slow both the drying and curing times.