

#### When other chinking pulls away, Log Jam holds its seal.

# Log Jam

Since its introduction in 1985, Log Jam chinking has been the recognized industry standard in elasticity, adhesion and durability, and



and compresses as logs shrink and swell—up to 100% of the original joint size (+/- 50%). Yet it maintains the traditional look of mortar, without "stretching out," so it still looks good after years of log movement. And Log Jam sticks! When other chinking products pull away from logs, leaving your home vulnerable to weather, air infiltration and insects, Log Jam is still maintaining a tight seal.

Log Jam is still the only chinking to hold a

UL fire resistance rating. Log Jam stretches

Log Jam holds its seal.

# Fundamental Chinking Application Guidelines

Proper substrate preparation and application are imperative for product longevity. Read this Data Tec sheet, LJC 002, before applying any product.

- 1. Best results are obtained when Log Jam is applied to clean, dry, stained wood. Make certain there is compatibility between your stain and Log Jam. Call Sashco for guidance if in doubt.
- Check the weather forecast. Finishing products are best applied in moderate weather conditions, i.e., out of direct sunlight, dry conditions and warm.
- 3. Check the log surface temperature. The ideal application range is between 50-90°F.
- 4. Install a bond breaker before Log Jam is applied. Backer rod, Grip Strip, and bond-breaking tape perform this function well. If Log Jam is applied over white styrene bead-board, it is best to cover the bead-board with polyester tape (to prevent adhesion to the beadboard). We do not recommend the use of blue or pink extruded polystyrene board.
- 5. Gun the chinking over the backing material. Ideal sealant depth is 1/2 of the joint width, but no less than 1/4", nor more than 1/2".
- 6. Tool Log Jam to ensure good contact with the log surfaces, especially to the upper log; this will greatly aid adhesion.
- 7. All chinking products may occasionally "blister". To avoid blistering:
  - Do not apply in direct sunlight.
  - Protect from direct sunlight for 1-2 days after application with white plastic sheeting tacked over the fresh chinking.
  - For detailed information, read Sashco's Savvy Bulletin, "Preventing Blisters".

# Application Surface Preparation

It is best to apply Log Jam to log surfaces that have been coated with a compatible stain that is thoroughly cured. Log Jam has a Lifetime Limited Warranty when applied over any of Sashco's exterior stains: Capture Log Stain, High Sierra or Transformation Stain. Call us for details on this special warranty—the best in the industry! If you select a different stain, make certain that it is compatible with Log Jam. We can test the compatibility of stains. Please allow a minimum of 6 weeks for testing. Call Sashco for more information.

Just another heads-up on compatibility: some coatings contain high levels of wax and must only be applied after Log Jam has been applied and allowed to cure. Additionally, coatings that are based on non-drying oils, like motor oil, should never be used in combination with Log Jam—neither before nor afterwards—since such oils can migrate to the bond-line and destroy adhesion.

The USDA Forest Products Laboratory and other researchers around the world have reported that surface wood exposed to sunlight for as little as 1-2 weeks can become significantly damaged and unsound. Not only can this lead to premature adhesive failure of the coating, but it has the potential to also harm chinking adhesion. So, once bare wood has been properly cleaned and prepped, Log Jam should be applied as soon as possible.

If a stain is applied over Log Jam, it will be tinted the stain color, but will be affected differently than the surrounding wood; therefore, test appearance before widespread use.

#### Surface Temperature

Wood surfaces should be between 40°F (and rising) to 90°F (and falling) and free of frost. Log Jam can be applied in cold weather, but you must create the right environment, and this is how. Tent out the walls with clear plastic and keep them warm with propane heaters. Once the surface temperature is at 40°F, apply the chinking. The chinking will flow better if the pails are at room temperature and kept warm. Make sure there is air circulation so moisture doesn't form on the logs (from the humidity created by the propane heaters). Some venting of the tent up high will help with this problem. Leave the tent intact, with warm air, for 2-4 days so that the chinking can start to properly skin over. Due to the cold temperature, it will take much longer than normal for the Log Jam to fully cure, but it will eventually dry to a rubbery seal if left undisturbed.

When you are applying Log Jam when the temperature is below 70°F, a mixture of 1-part denatured alcohol to 2-parts water can be used for misting the chinking immediately prior to tooling. When the temperature is over  $70^{\circ}$ F, water alone can be misted over the chinking to aid in tooling.

# **Methods of Application**

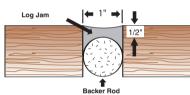
When using 5-gallon pails, Sashco's patented Snorkler<sup>TM</sup> Pumping system, grout bags or bulk loading guns may be used.

When using a cartridge, cut the spout at a  $45^{\circ}$  angle to desired bead size. In wider joints, multiple beads may need to be run until the entire joint is filled with chinking.

### New Construction Joint Design

The diagram shows the ideal type of joint design for all sealants—which allows for maximum sealant movement and favors cohesive failure (the best kind) if the movement is so extreme that failure cannot be avoided. Round backer rod is best, especially when substantial movement is expected, as with "green" logs. It is also best with "green" logs to make the chinking bead as wide as possible,

making the chink line width at least 15% of the width of the logs. For example, with 10"



Proper Joint Design: Depth = 1/2" width

diameter logs, the minimum chinking width should be about 1-1/2". The minimum joint width for any joint of any kind should be 1/4".

#### Restoration

All logs should be free of dust, grease, uncured oils, and other contaminants. Remove all loose mortar.

**Bond-Breaker:** When using Log Jam as a restoration chinking over old mortar, apply a "bond-breaker" over the entire joint. A polyester tape should be used (i.e. Mylon). Applied to old mortar prior to rechinking, the bond-breaker provides a surface Log Jam will not stick to. When movement occurs, Log Jam will be free to stretch.

**Tooling:** Log Jam should be tooled to contact at least 1/2" of the bare wood surface on either side of the old mortar. This will ensure adequate adhesion.

### **Slab Siding**

Slab siding can pose a special challenge due to the very rapid and large amount of movement it often exhibits after being installed. This movement shows up as extreme shrinkage, bowing and twisting, and can stress sealants more than logs do. To best help reduce this problem, the slab siding should be installed with heavy screws, rather than with nails. Use dry slab siding, and verify moisture level with a moisture meter.

- 1. Start with clean wood that has already been treated with a preservative and stain compatible with Log Jam. We recommend PeneTreat as a preservative and either Sashco's Capture/Cascade, Transformation Stain, or High Sierra Log Stain. The coated wood should also be well cleaned immediately before the Log Jam is applied.
- 2. It used to be possible to apply chinking directly to Tyvek<sup>TM</sup> housewrap, but with recent changes made to this house-wrap product, this is no longer true. So, polyester tape should be applied to wrinklefree Tyvek<sup>TM</sup> wrap before Log Jam is applied. Wrinkles left in the wrap will "telegraph" or show through.
- 3. If the boards are thick enough to install backer rod, we recommend that Half Rod<sup>TM</sup> backer rod be used with the round portion of the profile facing out from the building.
- 4. Apply Log Jam by use of trowel, grout bag, bulk loading gun, preloaded cartridges, or commercial machinery, such as the patented Sashco Snorkler Pump.
- 5. The width of the contact surface of the Log Jam on the edges of the siding should not be less than 3/8" (to insure

good adhesion) — and should be firmly tooled for good contact with the top and bottom siding boards.

- 6. Don't forget to chink or caulk (with Chinker's Edge, Log Jam, Log Builder or Conceal) the butt joints where moisture could otherwise gain entry in driving rains.
- 7. Refer to Sashco's bulletin entitled "Preventing Blisters in Chinking Material" (available free of charge by calling Sashco's toll-free number).

charge by calling Sashco's toll-free number). NOTE: Ideal joint design allows for the chinking to form an hour glass shape, as in this drawing, with the half rod backer material. Some slab siding undergoes extreme shrinkage which can lead to some early-on maintenance of the chinking.

**Round Logs:** To use a foam brush, work the material smooth with a damp brush, keeping a rag handy to pick up drips of water and excess Log Jam.

**Square Logs:** Use a putty knife to strike off excess of Log Jam, making the joint level with the logs. Use a damp foam brush to smooth the material, keeping a rag handy to absorb drips and wipe off excess Log Jam.

Not only do these techniques give an aesthetically pleasing chinking line, they also ensure a proper seal between the Log Jam and the log surface.

#### **Round Logs**



1. Install Grip Strip into caulk well of clean, stained logs.

#### Appalachian Style Logs



1. Start with logs that are stained with a coating compatible to Log Jam and have properly installed backer material.

#### **Corner** Joints





2. Tape the entire joint using

polyester tape.

2. Or, install backer rod into

caulk well of clean, stained

logs

- 1. Install backer rod into corners of clean, stained logs.
- 2. Gun Log Jam over the



3. Gun Log Jam over the backer material.

3. Gun Log Jam over the

backer rod.



4. Lightly mist the Log Jam as needed.

4. Lightly mist the trowel as

needed.



5. Tool to ensure a tight seal to the top and bottom of the chink line.



5 Tool to ensure a tight seal to the top and bottom of the chink line.

\*NOTE: Use a bond breaker (e.g. backer rod) when significant log movement could occur. When movement is known to be minimal (as with many older homes) using backer rod is still best, but usually less critical.

backer rod.



3. Lightly mist the Log Jam as needed.



# Warning: Blisters May Occur

Blisters are a phenomenon commonly found in the caulking and sealant industry. They form when moisture from the chinking accumulates in voids beneath the bead and gets hot from the sun. Blisters appear as "bubbles" in the material and vary widely in size.

Shield freshly chinked walls from the sun with white tarps. If this cannot be done, keep a close eye on the chinked wall for the first 24-48 hours. If a blister begins to develop, puncture a hole in the middle of it, and gently push the material back into place. 3-5 days later, touch-up the repaired blister with Log Jam.

For more detailed information on blisters, please refer to the Sashco Savvy Bulletin entitled "Preventing Blisters in Chinking Material." Call Sashco for this Bulletin.

# Logs Move!

Occasionally, a small number of logs on any home may undergo extreme movement due to their changing moisture content as they come to equilibrium in their new settings as part of a log home. Most logs, as they dry or go through the repeated process of taking on and giving up moisture, will undergo moderate levels

of stress on sealants applied to them. An occasional log will twist, shrink or warp-in response to changes in its moisture content-in an extreme way, moving more than any sealant can possibly handle.

When this extreme movement occurs it will cause the sealant to fail either cohesively or adhesively. If the failure is cohesive (sealant splits down the middle) then the repair is performed by cleaning the surface of the failed sealant and reapplying more. If the failure is adhesive (sealant pulls away from the substrate), then the sealant needs to be removed and completely redone.

Since all sealants take several days to completely cure after being applied, it is important to realize that the logs often move (sometimes substantially) while Log Jam is curing (and before it develops its full strength). This can damage the chinking - and nothing can prevent this problem. So, work with your applicator when this problem occurs to cooperatively get the repairs done.

#### **Clean-up and Disposal**

Dispose of Log Jam in accordance with local regulations. Do not dispose of in drinking water supplies.

Hands, surfaces and equipment may be cleaned-up with water.

# **10-Year Warranty**

When applied in accordance with the Data Tec sheet LJC 002, Sashco Sealants warrants Log Jam for the following items for 10 years. 1) It will not pull away from log surfaces. 2) It will remain elastic and stretch up to 100% (+/-50%) of the original joint size. If Log Jam fails to perform as specified above, return proof of purchase and Sashco will furnish product to repair the damaged areas. This warranty includes product replacement only. No other warranties are expressed or implied. Sashco, Inc. reserves the right to inspect the structure prior to any product replacement. (Special color matches excluded.) Contact Sashco for information on the Limited Lifetime Warranty.

# **UL One Hour Fire Rating**

When applied in accordance with Fire Resistance Directory Design No. UL519. Call The Publications Group at 877-ULHELPS (877-854-3577), extension 49595 for more information.

- 1. Wood Logs: Soft wood timbers with a minimum diameter of 7.0 inches. The gap between the logs shall not be greater than 2.5 inches.
- 2. Backer Rod: Formed polyethylene backer rod used to fill the gap between wood logs and to provide support to the chinking material. The diameter of the backer rod varies with the width of the gap between logs. The backer rod may be mechanically secured to the wood logs.
- 3. Joint Treatment Material: The chinking material is applied with a caulking gun over the backer rod and to the surface of each log adjacent to the backer rod. The minimum thickness shall be .5 inches. The maximum may be troweled to achieve a smooth finish and/or feather the edges.

# **Technical Data:**

(Not to be considered specifications)

**Color:** Mortar White, White White, Buff, Tan, Gray, Woodtone Cedar

**Packaging:** 5-gallon straight-sided white pails and 29 oz. fiber cartridges

**Water Resistance:** Log Jam forms a water-resistant skin in 1-4 hours after application. This resistance depends on bead size, humidity and temperature. If applied in cool or humid weather and rain is imminent, covering the chinking with a plastic sheet may be necessary.

Service Range: -30°F to 250°F

**Paintability:** Paintable with oil or latex stains after 1 week cure time. If giving chinking a facelift with Brush Over, make sure chinking is cured.

**Compatibility:** Compatible with most sealers and preservatives, including linseed oil, borates, pen-tachlorophenol and copper compounds. NOTE: Some coatings contain wax or other chemicals, making adhesion difficult. Call Sashco for more information.

Shelf Life: 18 months from date of packaging.

**Passes:** ASTM C834-00 Latex Sealing Compounds, ASTM G-53 QUV

Accelerated Weathering: 4,000 hrs

ASTM D-638 Max 230%, Tensile Strength 36psi, after 28 days room temperature cure

ASTM C-920 (12.5)

VOC: 0.28 lbs/gal; 34 g/liter; less than 4% by weight

**Warning:** This product contains a chemical(s) which is reported by the State of California to cause birth defects or reproductive harm.

Adhesion:  $^{\scriptscriptstyle 1,2}$  (180° Peel): Call Sashco for stain compatibility with Log Jam

**Cure-Through Time:** 3 weeks (1/2" thickness. 70°F, 50% relative humidity)

Viscosity: Approximately 280,000 cps at 10 rpm, spindle #14

**Freeze-Thaw:** Passes at least 5 cycles (0°F to 70°F)

Hardness (Shore A): 29

Slump: 1/16" (Max) in test joint (3-1/2"H x 3/4"D) at 70°F

Stain: None

Tack-Free Time: Less than 30 minutes (70°F, 50% relative humidity)

Water Resistance: No washout (4 hours; 40°F, 50% relative humidity)

#### Weathering:

WashoutNoneCrackingNoneDiscolorationPasses ASTM C834-00

**Snow:** Be cautious of areas where snow builds up around the structure and remains for extended periods of time. Snow removal is recommended for these areas to ensure the ultimate adhesion of Log Jam.

<sup>1</sup> Ultimate adhesive strength attained in 3-6 weeks depending on bead size, temperature and humidity.

<sup>2</sup> Dry adhesion is tested after 28 days room temperature cure. The average of several tests is reported.



To order call 800-827-1688