

# Foam Laminates of Vermont

A Division of Energy Smart Building Inc.

## After Installation

Foam Laminates of Vermont recommends finishing some items once the wall and roof SIPs are installed. These items include; cutting window openings, nailing off splines, foaming SIP joints, installing 2x lumber, and wrapping the SIPs with a waterproof membrane.

*FLV recommends foaming in temperatures above 40°F. Spray foam expands much better in temperatures 40°F and higher which will provide a better seal. If foaming must be done in colder temperatures, you will need to water mist the foam which will help expansion.*

## Roof Foaming

All the SIP joints in your roof should be foamed immediately after installation. All roof splines should be nailed off before foaming starts. **We will foam the roof panels for you if we have been contracted to install your SIPs.**

We always recommend a drill and fill method. A drill with a 3/8" bit will be needed for this. Wrap tape around the bit to set your depth to the foam channel in the center of the panel. Start at the ridge drilling holes every 8"-10" in all the panel seams. Once all the holes are drilled you can start foaming. Start at the ridge and work your way down. Spend 3-4 seconds foaming each hole. You should start to see foam creeping into the next hole.



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## **Vented or “Cold” Roof**

A vented roof system is achieved by running strapping over the top of the roof SIPs and adding an extra layer of sheathing. Vents will be added at the ridge and eave. This assembly provides air movement over the top of the panels, which promotes drying if moisture develops at the surface of the roof.

Many shingle manufacturers will not warranty their products over an unvented roof. Always check with your shingle manufacturer if you plan on applying asphalt shingles without a vented roof system.

Metal roofing is commonly used over roof SIPs. This can be applied directly to the SIP with 30# felt or over a vented roof assembly. We do not recommend an air space between the metal roof and the sheathing. This can cause condensation under the metal which may cause rusting.

## **Roof Paper**

FLV recommends applying 30# felt to your roof SIPs to help protect them. Apply the 30# felt to the roof as soon as the spray foam is cured. Felt paper will keep the SIPs dry if inclement weather is to occur during construction. Builders have been using this for years and most times roofing is removed 10-15 years later for replacement and the OSB still looks brand new. Asphalt felt has a perm rating of only 5 perms when dry, but a much higher rating of 60 perms when wet. The felt can soak up moisture that gets behind it and gradually dry to the exterior. The same cannot be said for synthetic products. Many times, builders find rotten plywood with these products. Plastic house wraps are non-absorbent, and any water trapped behind them can only pass through to the exterior as vapor. We do not recommend using synthetic products over SIPs.



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## Window Cut Outs

Any window openings that were not framed during wall panel installation should be cut at this time. This will be done with the Prazi saw and a hot knife. The edges of the openings should be laid out and chalked on the inside of the panels.

After the window opening is cut use the hot knife to rout the edges to accept a 2x6 or larger if wall SIPs are greater than 6½". Once all foam is routed you can install the 2x material. Apply a bead of foam to all 2x6's before installation. Tap the lumber into place lightly to avoid collapsing the foam. Lumber should be fastened through the OSB skin with 8d galvanized ring shank nails.

## Wall Foaming

**Do not foam your walls until all wiring is done, window openings are finished, and splines are nailed off.** Wall foaming should be done before windows and doors are installed. This will ensure that you do not get foam on your windows and doors.

Wall foaming is done much like the roof. You need to drill holes in all panel seams 8"-10" apart. Make sure you chalk lines where all electrical chases are located so you do not drill into the wiring. Once all holes are drilled you can start foaming. FLV recommends starting at the top of each seam and working towards the bottom. 3-4 seconds for each hole should suffice.

## Wall Covering

Just like the roof covering, FLV recommends applying 30# felt on your wall SIPs to help protect them. Apply the 30# felt to the walls as soon as the foam is cured. Felt paper will keep your SIPs dry if inclement weather is to occur during construction.

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## Home Slicker®

Home Slicker® is a product that creates an air space between your siding and your 30# felt paper/SIP. This product will ensure that the SIP and your siding will dry out if moisture gets behind the siding. This product is not needed for Vinyl siding. The air space created by this product will reduce the forces that draw water into your siding assembly. Water that does migrate into this area will drain away from the wall and allow the cavity to dry quickly.



## Siding Options

**Shiplap:** We recommend adding furring strips to your SIPs for shiplap siding. This will increase the fasteners holding power. We recommend ring shank nails for application. Adding furring strips negates the need for Home Slicker® because this will create an air space behind the siding.

**Vinyl Siding:** Home Slicker® is not needed for this product. Vinyl siding is applied with roofing nails. See manufacturers' recommendation for fastening intervals.

**Hardie Plank®:** Hardie Plank is a very popular siding choice by many of our customers. We recommend installing this product over Home Slicker®. Please contact FLV for fastener requirements. Visit <http://www.jameshardie.com/> for more information.

**Clapboards/Shakes:** We recommend installing these products over Home Slicker®. Typical installation is done with galvanized ring shank nails.

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## ELECTRICAL HINTS:

- Use a remodeler's box that clamps the wire securely to the box and has flanges so that the box can be fastened to the panel skin.
- Do NOT cut long grooves in the panel skins. (If necessary, use a 24" drill to go from one 4" access hole to another access hole)
- Use interior stud walls whenever possible. Rather than trying to bend around a 90 degree turn into the SIP, drill a long diagonal hole from the stud through the wall panel and into the horizontal chases. Wires will slide much easier through this configuration.
- Push all wires through a chase at the same time. With Electrician's pliers, fold and crimp the longest wire back on itself about 1". Use electrical tape and cover that end. Stagger the ends of any additional wires and tape over these. Keep all wires flat when taping together.
- You can gain access to wire chase intersections by using a 4" hole saw. Use a flat blade screw driver to pry out the plug. Keep the plug to re-install later. After all wires are pulled, spray foam the hole and replace the plug.
- Try to locate all switch boxes next to a door opening. You can create a groove in the side of the opening by running your hot knife up the side of the opening. You can then drill a hole to get to the switch box.
- There are several videos available on YouTube that go into more detail about wiring. You can gain access to these videos by searching "SIP Wiring".