



Installation Guide Carbonized cedar (Yakisugi) exterior cladding

This document provides guidelines for installing our cladding products. Our company follows the installation guide developed by CECO (the centre of expertise for commercial construction), which brings together some of Quebec's leading manufacturers of cladding. The CECO guide can be found on our website with the following link: <https://www.treesandwood.com/warranties>. For purposes of enforcement of the Arbres et Bois warranty, the CECO guide should be deemed an integral part of our installation guide. In case of any doubt in the interpretation of this guide or the CECO guide, please contact Arbres et Bois.

Type: Tongue and groove

Yakisugi boards are made of solid cedar, a natural material, possibly with inherent variations in the grain, that has been carbonized, cleaned and oiled – a process implying that every board is unique, so no two are alike. Our products meet stringent quality standards, as well as standards upheld by the wood industry that allow a margin of error no greater than 5% of the quantity of boards purchased. This includes both natural imperfections in the wood, as well as manufacturing and grade selection defects. When placing an order for wood cladding, an extra supply should be factored in to compensate for loss of wood due to cuts. The excess should be $\pm 10\%$ of the surface being covered, based on the site configuration and type of installation. We will not be liable for poorly installed products or an installer's bad judgement, nor will we cover any labour or installation costs.

Storage before and during installation

The cladding should be stored at least 8" off the ground. Keep the boards in a dry, well ventilated area until they are installed. Do not leave them covered for several days with a tarp placed directly on the wood, to avoid moisture accumulating on the boards (ventilation is required). To prevent the wood from drying out, do not store the cladding in a heated area. Check the cladding at the end of each install day, to make sure it is not exposed to rain. **Never install boards that may be wet or have moisture accumulation, so they do not shrink when dry.** Test the moisture content using a moisture meter, inserting the pins into the back of each board before installation. A pre-installation reading of 7% to 13% will be considered normal. If the boards have a moisture content higher than 13% after transport and storage, remove them from their packaging and lay them out to dry a few hours before installation.

If any abnormalities are found or if you have any doubts about product compliance, DO NOT INSTALL THE CLADDING and contact Arbres et Bois. Our warranty is limited to replacement of defective product before installation. Given the nature of the material, however, abnormalities in 5% or less of the total volume delivered will be considered normal and the product will not be subject to replacement. The following are deemed abnormalities that warrant replacement: defective tongue and groove joints that make the cladding unusable, warped or curved boards that cannot be installed in lengths of 4 feet or more, the presence of a hole or a partially or fully detached knot, and any abnormal openings (such as cracks) that may allow water ingress. Although boards are usually delivered in 8-foot lengths (between 7'11" and 8'2"), Yakisugi is sold by the square foot, so replacement quantities will be calculated based on total square feet. A board will be considered completely unusable unless a section at least 4 feet in length can still be used.

General rules for installation

Please ensure compliance with specific Building Code requirements, as well as those in place for your region.

The cladding should not touch the insulation or the masonry, and you should have a clearance of at least $\frac{3}{4}$ ". Use the universal starter strip to ensure continuity in ventilation for the wall.

Make sure the air barrier is properly installed and that all openings (doors, windows, etc.) are watertight. Constant moisture or water ingress will prematurely age the cladding and cause damage that sometimes cannot be repaired.

Install metal flashing above and below all openings and at any point where stagnant water may collect on HORIZONTAL wood surfaces.

Check to ensure that the furring strips, which are usually 1"x3" (19 x 64 mm), are dry, securely attached and free of defects such as rot, holes, cracks or other abnormalities that could result in a bad installation job. When installing the boards vertically, put in double furring strips: first the vertical ones, and the horizontal ones attached to them. If the cladding is installed horizontally, single furring using 2"x3" (38mm x 64mm) strips can be put in.

One essential is good air circulation behind all wood claddings. Let the air circulate freely at the bottom of every wall and above all openings by installing a screen or, preferably, a metal starter strip. The air should move freely between the furring strips, while keeping vermin and insects out. Make sure to have adequate air venting at the top, which is just as important as at the bottom of the walls.

Specific installation rules

FURRING STRIPS

- Use furring strips that are at least 1"x3" for double furring (vertically installed cladding) or 2"x3" if the cladding is installed horizontally with single furring.
- 16" spacing o.c. between furring strips.
- Be sure to remove all materials that could prevent continuity in ventilation.
- Use a ventilated starter strip.

The following minimum clearances are mandatory for cladding:

- 60 cm from the ground
- 2.5 cm from adjacent horizontal structures (patio, apron, flashing, etc.)
- 6 cm from roof shingles.

Planning how to distribute board lengths on the walls – Position the boards so you limit the number of joints on the wall. There should not be any joints above and below the openings. Alternate joints so they are spread out on the wall in a random install. If the boards come from separate production lots, there may be a slight colour difference: mix boards from different lots or, preferably, transition them at a corner or in a different section.

The first row should be installed level. All corners of the structure should be checked to ensure the boards are at the same height on each wall. Take a measurement at every third or fourth board to be sure the rows are at equal heights and level on each wall. If you need to make an adjustment, spread out the correction over several boards without exceeding 1/16" per board.

JOINTS

- Joints should be bevelled outward at 22.5°, 30° or 45°, and always attached to a furring strip.
- Always seal the ends after making a cut. Since the product to be used varies depending on the choice of finish, contact Arbres et Bois for more details.
- Sealing the joints with a high-quality weather seal is generally recommended, but it is MANDATORY when doing a horizontal install.
- Vary the board lengths along the wall for a more attractive look.
- The cladding should never touch the roof, and the clearance should be at least 6 cm.

- For all openings (windows, doors, mouldings, etc.): To prevent water ingress and insect entry, apply a high-quality weather seal (similar or equivalent in quality to ADSEAL 4580) to the cladding surface.

STAPLES

- Only staples for panelling can be used when installing Yakisugi cladding. These 16-gauge stainless steel staples are 7/16" wide by 2" long.
- Important: Do not insert any staples less than 3/4" from the end; use nails if the wood cannot be stapled.
- Always use a machine that lets you choose the power setting. The staple head should rest on the wood surface, rather than penetrate and damage it. Make sure the staples are driven 1/4" into a solid substrate and the board is fully supported on the furring strip before attaching it.
- Use a staple centred on each furring strip. The staple should be positioned on the staple line at an angle between 30° and 40°.

HORIZONTAL INSTALLATION – VERTICAL LATHING

- Vertical furring should be 16" o.c.
- Install a universal starter strip to allow wall ventilation. This also controls entry by vermin and insects.
- The universal starter strip was designed for horizontal installation and should run continuously around the building, on a wall, with dried 2"x3" furring strips installed 16" o.c.
- Be sure to remove any horizontal obstruction that could prevent proper continuity in ventilation behind the cladding.
- During installation, place the boards flush against each other lengthwise.

VERTICAL INSTALLATION – DOUBLE FURRING STRIPS

- Use double furring strips – horizontal on vertical – spaced 16" o.c. respectively.
- Install a universal starter strip to allow wall ventilation. This also controls entry by vermin and insects.
- The universal starter strip was designed for horizontal installation, and should run continuously around the building on a wall.
- Be sure to remove any horizontal obstruction that could prevent proper continuity in ventilation behind the cladding.

- The universal starter strip was designed for vertical installation and should run continuously around the building on a wall.

Important: Compliance with the installation and storage requirements set out by Arbres et Bois, as well as Building Codes in your region, is mandatory. The warranty issued by Arbres et Bois Inc. may not cover problems arising due to non-compliance with these standards and codes.

Non-compliance with one or more of the instructions set out in this Guide could void the warranty.

This guide is only applicable in the province of Quebec, Canada. Clients outside of Quebec and abroad are invited to contact Arbres et Bois for more information. European clients are asked to contact our distributor.

Effective date: 17 March 2021