Nusku Fireblocker

Installation Guide : Primed Redwood

Project Photo
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DESIGN TO DELIVERY

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Nusku Fireblocker

Nusku Fireblocker is a WUI Approved paint grade siding, trim & fascia made from 100% redwood. It utilizes a finger joint & edge glue process that allows us to recover downfall raw materials from sawmill partners while ensuring a high quality finish for our customer.

Engineered Redwood Specifications

Species: Redwood (Sequoia sempervirens)
Grain: Primarily Vertical Grain (through manufacturing processes)
Grade: Clear Aye
Thickness: 1x, 5/4x, 2x
Widths: x2, x3, x4, x6, x8, x10, x12, x14
Lengths: 16' & 20' (3-5% trim backs)

Maintenance Guide Pages

Disclaimer

Consult your local building code to ensure your project is installed in accordance with local requirements & consult your local building office to understand permitting requirements. Drilling, sawing, sanding or machining wood products generates wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

Storage & Handling

Handle the product carefully to avoid damage.

- Always protect the product from the weather, direct sunlight, water saturation & dirt by storing the uninstalled product in an enclosed building or under a waterproof cover.
- If a waterproof cover is used, do not seal the bundle to allow air circulation & acclimatization to the jobsite.
- Store the product flat (do not allow the center of the stack to sag) & at least 4" off the ground on the stringers to prevent moisture application.

Proper storage & handling of Fireblocker will best allow the product to acclimate to it's new environment. Reference as follows for key principles of onsite storage.

Always Allow		**Always Avoid**	
	Proper Circulation: Ensure Fireblocker has airflow to reduce trapped moisture		**Avoid Moisture:** Ensure moisture stays out of the unit stored onsite prior to install
	Ground Clearance: Ensure product is stored elevated above ground & concrete		**Avoid UV:** Ensure material is kept out of direct UV/sun which can lighten the color
	Proper Coverage: Ensure material is covered but ends are open for breathability		**Excessive heat:** Ensure the product isn't taking excess heat in it's covered state

Moisture Content and Acclimatization

Fireblocker is manufactured from natural Redwood that, like every wood product, will shrink or expand accross the grain due to changes in moisture content. **It is imperative to allow the product to acclimatize to the jobsite prior to installation.**

Exterior Installation
The unistalled material must be protected from liquid water & have adequate air circulation to the stack until the porduct has reached the equillibrium moisture content (EMC) for the region.

Interior Installation
Store the unistalled material for at least 5 days in the environment in which it will be installed. Prevent exposure of the stored material to high humidity levels that come with some stages of construction such as painting or drywall mudding.

DO NOT INSTALL THE PRODUCT WITH GREATER THAN 15% MOISTURE CONTENT

USE A MOISTURE METER & INTERPRET THE READINGS WITH RESPECT TO THE TIME OF YEAR & CLIMATE CONDITIONS TO ACHIEVE OPTIMAL INSTALLATION

An example: You are installing the Fireblocker siding/paneling product on an exterior wall during a particularly hot & dry summer in California. Your moisture meter has an average reading of 8% moisture content, so you must leave a 1/16" gap between successive courses to allow the product to expand due to the higher relative humidity (RH) & corresponding higher moisture content in the winter months.

Envelope & Moisture Management

Local & National Building Codes should be followed to design & build a structure that controls & manages moisture infiltration. The exterior envelope components:

- Must be installed to shed water & prevent pooling of water.
- Must be designed to minimize water ingress by sealing & flashing (sealant is not a substitue for flashing.
- Strongly advised to utilize a rainscreen wall assembly (an airspace between the water resistive barrier & the back of the sliding & trim). A rainscreen assembly allows water to effectively drain out & away from the structure.

The exterior wall assembly of a building is a series of components that, together, create a system. Best performance of the exterior wall assembly system depends on each component being installed correctly with the consideration of local environmental consitions, building codes & product & material limitations. Performance of this system is the responsibility of the architect & installer & not the manufacturer of the building materials. Fireblocker assumes no responsibility for water penetration into or beyond the exterior wall assembly.

Fireblocker has been manufactured to the highest standards to ensure long term durability & a high aesthetic value throughout the product's service life. Please adhere to this Installation guide to obtain the maximum performance from your Fireblocker Engineered Redwood Siding/ Paneling and to maintain the Manufacturer 30 Year Limited Warranty.

Beginning Do's & Don't's

The Do List
- Print & distribute this Installation Guide to your installation crew at project commencement.
- Adhere strictly to the Installation Guide.
- Follow all applicable local, National & International Building Code requirements.
- Strive for a "best practice" installation.
- Coat all end grain surfaces exposed by jobsite field cuts with an exterior sealer.
- Follow coating/paint manufacturers written instructions when applying finish.
- Install diverter flashings (kick-outs) on roofs to prevent water loading of walls.
- Use a moisture meter & interpret the readings with respect to the time of year & climatic conditions to achieve an optimal installation.

The Don't List
- Do not use this product for structural support.
- Do not install product closer than 8" to grade or 2" from decks, patios, concrete, and/or roofs.
- Do not allow product to be in contact with the ground.
- Do not allow sprinklers to regularly wet the product.
- Do not install product in a manner that allows water to pool against or behind it.
- Do not substitute caulking or sealant for flashing.
- Do not install or apply finish to product with a moisture content greater than 15%.

Before You Begin
Confirm you have purchased the appropriate product for your application & inspect the material for any defects. If any material is found to be unsatisfactory, do not install it, instead, contact your Weaverbird representative or email Weaverbird using hello@weaverbirdco.com to obtain replacement material. Installation of the product constitutes acceptance of the condition of the product.

Approved Use

Fireblocker can be installed as trim, fascia, siding, soffits, corner boards, rake board & band board. This product can NOT be used for handrails, trellis, fencing, decking or other landscape projects.

Fasteners & Fastening Requirements

Along with moisture management, proper fasteners & fastening schedules are two of the most important components of a successful installation.

- Use stainless steel ring or a spiral shank nails to prevent rust stains on the product or fastener failure. These fasteners have a blunt point to prevent splitting and provide excellent holding power. Use No. 304, stainless for general installations and No. 316 stainless for coastal installations.
- Drive nails flush with the surface of material. When using a pneumatic nail gun, use a flush nailing device to prevent over driven nails.
- Overdriven nails must be filled with exterior wood putty & spot primed.
- Siding/paneling can be face nailed or blind nailed (on an angle through the tongue) when blind nailing in windy environments, hot environments or coastal exposures, an additional nail is recommended (through the face, 1" from the bottom of the board in adherence with all other fastener and fastening requirements).
- Nails are to be spaced a maximum of 24" on center.

Fasteners must provide 1 - 1/2" penetration into a solid, nailable substrate (into studs or a combination of furring strips, sheathing and/or studs)

Finishing nails, brad nails and staples are NOT approved for exterior installation.

Nailing Schedule

Fireblocker is available in many different sizes & patterns. With that, it is important to consider the fastening/nailing schedule with each item & pattern. These are the minimum recommended fastening requirements. Please consult local building regulations that might require other dimensions or fixing types.

Narrow Dimensions

Nominal Width	x2	x3	x4	x6
Nails Per Stud	1 Nail	1 Nail	2 Nails	2 Nails

Wide Dimensions

Nominal Width	x8	x10	x12	x14
Nails Per Stud	2 Nails	3 Nails	3 Nails	4 Nails

Patterns (Face Fastened Installations)

Various T&G, Shiplap, Bevel, Trim & Fascia profiles are commonly utilized with exposed fasteners. While the pattern (reveal, net dimensions) can change the installation in relatively consistent across the varied appearances. Please check the boards thoroughly for possible manufacturing, moisture or transport related damage. Once installed, products are deemed to have been accepted in terms of quality.

Tongue & Groove

Standard tongue & groove profiles create an interlocking design where the tongue side fits into the groove. When using T&G profiles, fasteners can be partially hidden by nailing at an angle at the base of the tongue. While there is a benefit of partially hidden fasteners, removing boards at a later date is challenging because of the interlocking nature.

Nails proper depth   Nails too loose   Nails too deep

1/8" Gap between all boards for expansion
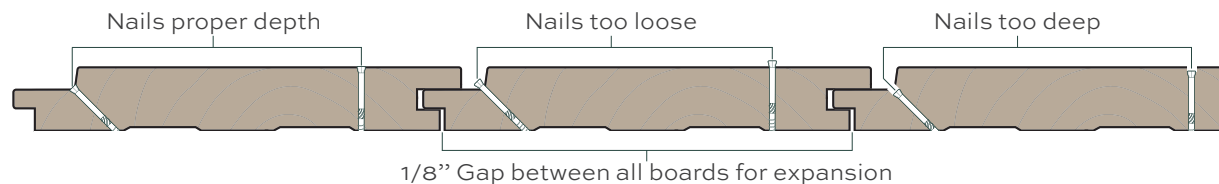
- When installing Tongue & Groove boards in horizontal orientation, tongues point upwards.
- When installing Tongue & Groove boards in vertical orientation, tongues should point
  the direction where wind most commonly blows from.

Shiplap

Standard shiplap profiles do not create an interlocking design. When using shiplap profiles, all fasteners must be installed directly through the face of the material. Another benefit of shiplap cladding, fasteners can more easily be removed & individual boards can be refinished or replaced as needed.

Nails proper depth   Nails too loose   Nails too deep

1/8" Gap between all boards for expansion
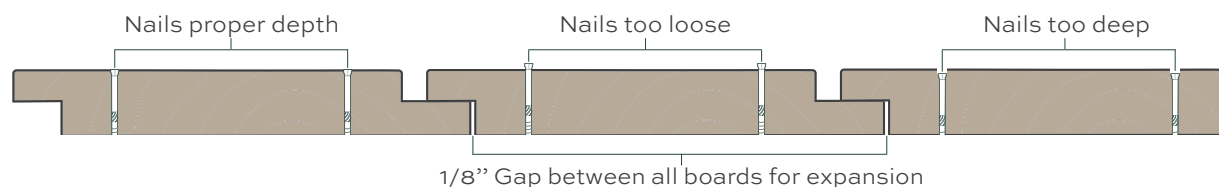
- When installing Shiplap boards in horizontal orientation, covered lap should point upwards.
- When installing Shiplap boards in vertical orientation, covered lap should point
  the direction where wind most commonly blows from.
- When installing Shiplap boards, always start from the lower edge of the wall upwards.

Important Fastener Note

Proper depth on fasteners is important to prevent excessive moisture absorbtion. Fireblocker cladding must be installed with stainless steel siding nails. Do NOT use common steel or galvanized nails. Do NOT use casing, finishing, brad or other small-head nails. Staples are NOT approved fasteners.

Exterior Wall Assembly Construction

When installing this product adhere to the following International Building Code requirements for exterior wall assembly construction.
(Note: this is not an exhaustive list, but is provided as a guide, & there are some exceptions.)

- A water resistive barrier is required behind the exterior veneer;
- a means of draining water that has entered the assembly to the exterior, is required;
- continuous flashing must be installed above all projecting wood trim;
- Doors & windows must be installed in accordance of the manufacturer's
  installation instructions.

Rainscreen Construction

To prevent water from collecting within the exterior wall assembly, to promote drying of siding products & to maximize the performance of exterior wall assembly materials and coatings, we highly recommend rainscreen wall construction. To achieve a rainscreen wall assembly follow these general principles:

- Install vertical furring strips over the water resistive barrier (WRB), directly over the studs.
- Fasten the siding over the vertical furring strips.
- Ensure that all third party materials are installed in accordance with the manufacturer's
  instructions & building code requirements.

Note: There are three-dimensional "drainage mat" type products avaliable in the marketplace that also provide a means for water to drain behind exterior cladding.

Note: Always maintain a 1 - 1/4" gap between the bottom of the siding and the top of flashing to act as a capillary break. This location should never be caulked.

Vertical Siding - Installation Note

If horizontal furring strips are used for a vertical siding installation, 2" drainage slots are required every 18" on the back of the furring strips. Ensure that the horizontal furring strips provide an advocate 1 - 1/4" nailing base in combination with the sheathing.

Rigid Foam Sheathing - Installation Note

Rigid foam sheathing does not have an adequate nail holding capacity. Adjustments to the design and construction of the exterior wall assembly are needed to achieve a suitable nailing base. Furring strips are imperative to create an air space between the back of the siding and the rigid foam sheathing siding, install directly on top of rigid foam sheathing can result in moisture accumulation between the two materials, and may result in damage.

Horizontal Cladding Installation (T&G & Shiplap)

Fireblocker cladding recommends a rainscreen wall assembly. When installing Fireblocker T&G, Shiplaps or Bevels horizontally, furring strips must be fastened directly over studs. Refer to local building regulations for required batten spacing based on wind loads. Never exceed 24" O/C batten spacing.

Proper Substructure & Spacing

- Recommended furring strip spacing: 16" O/C
- Minimum distance above grade: 8"
- Minimum thickness if solid wood/marine plywood furring: 3/4" Net
- Minimum thickness if composite furring/drainage mat: 3/8" Net
- Recommended gap between courses: 1/8"

When fixing horizontal cladding, the end of each Fireblocker board must land on the vertical battens. Ensure all nails are gapped minimum 3/4" from edges & ends to reduce splitting. For best practice, add an additional batten & keep nails gapped 3/4" from edges & 1-1/2" from ends.
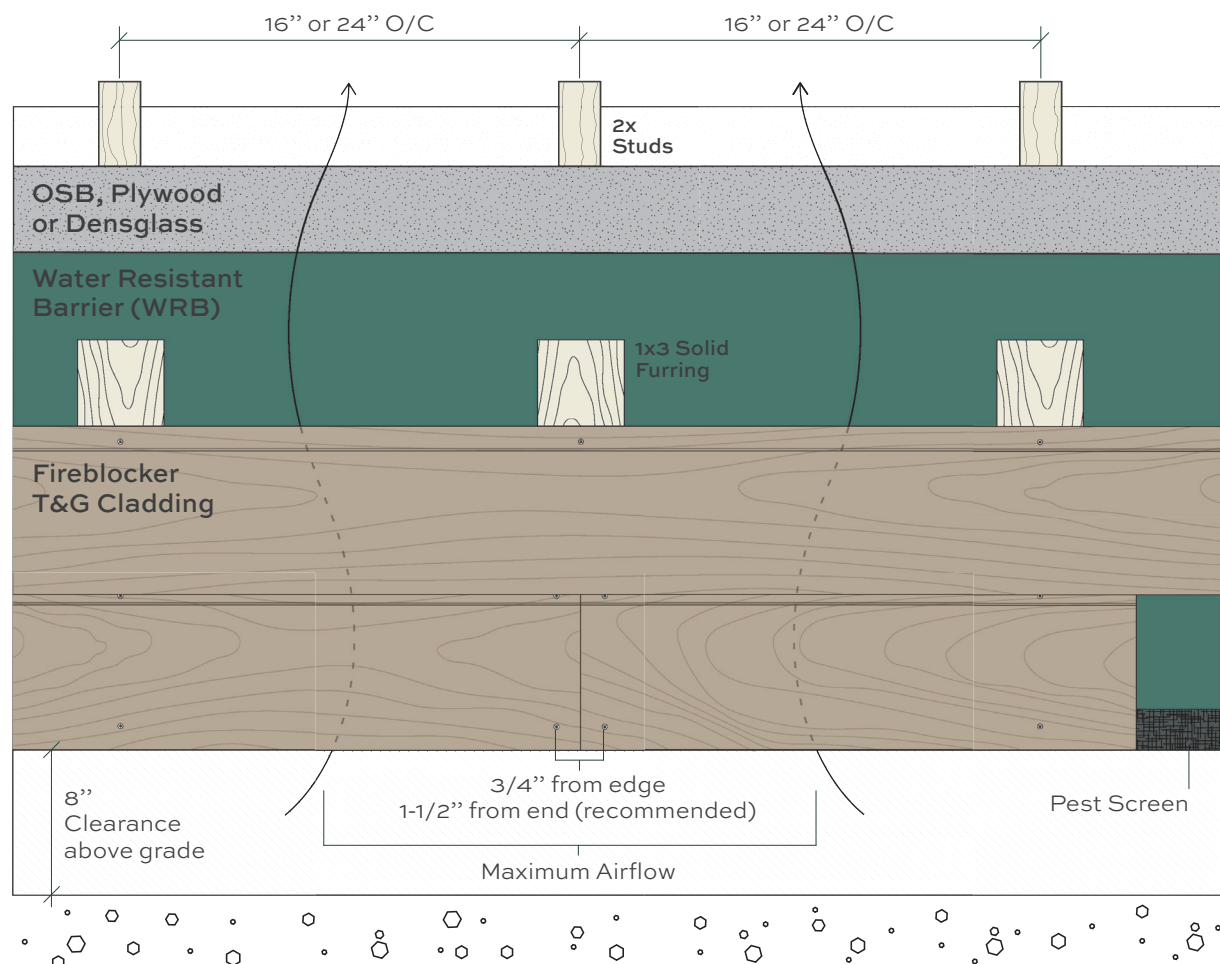
Vertical Cladding Installation (T&G)

Fireblocker cladding recommends a rainscreen wall assembly. When installing Fireblocker T&G or Shiplap vertically, install vertical furring directly to studs followed by a horizontal layer. This "furring grid" creates a solid base for fasteners & allows airflow. Refer to local building regulations for required batten spacing based on wind loads. Never exceed 24" O/C batten spacing.

Proper Substructure & Spacing

- Recommended furring strip spacing: 16" O/C
- Minimum distance above grade: 8"
- Minimum thickness; solid wood/marine plywood furring: 3/4" Net
- Minimum thickness; composite furring/drainage mat: 3/8" Net
- Recommended gap between courses: 1/8"

When fixing vertical cladding, the end of each Fireblocker board must land on the horizontal battens. Ensure all nails are gapped minimum 3/4" from edges & ends to reduce splitting. For best practice, add an additional batten & keep nails gapped 3/4" from edges & 1-1/2" from ends.
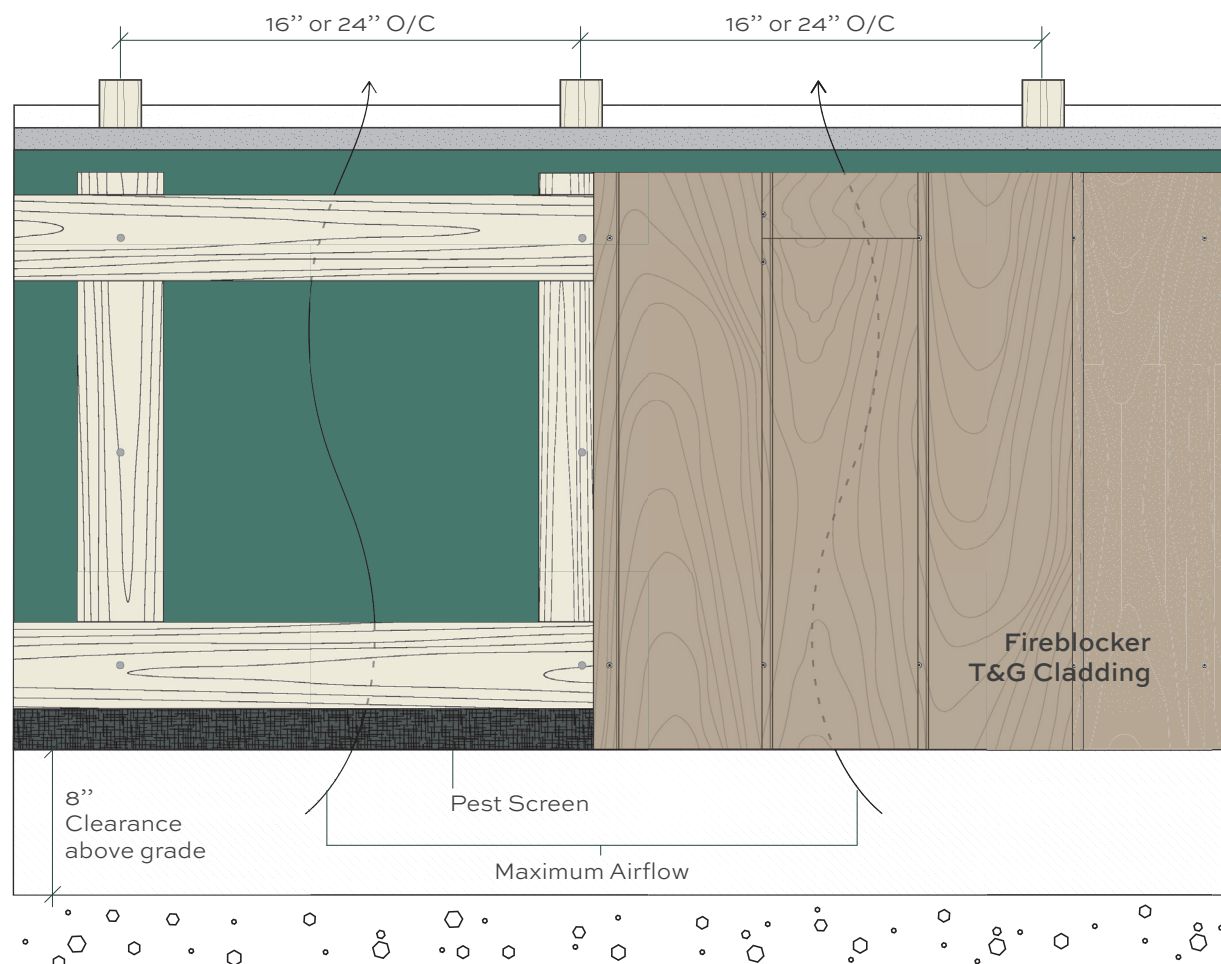

16" or 24" O/C

16" or 24" O/C

Fireblocker
T&G Cladding

8"
Clearance
above grade

Pest Screen

Maximum Airflow

Cladding Fastening (T&G)

Along with moisture management, proper fasteners & fastening schedules are two of the most important components of a successful installation.
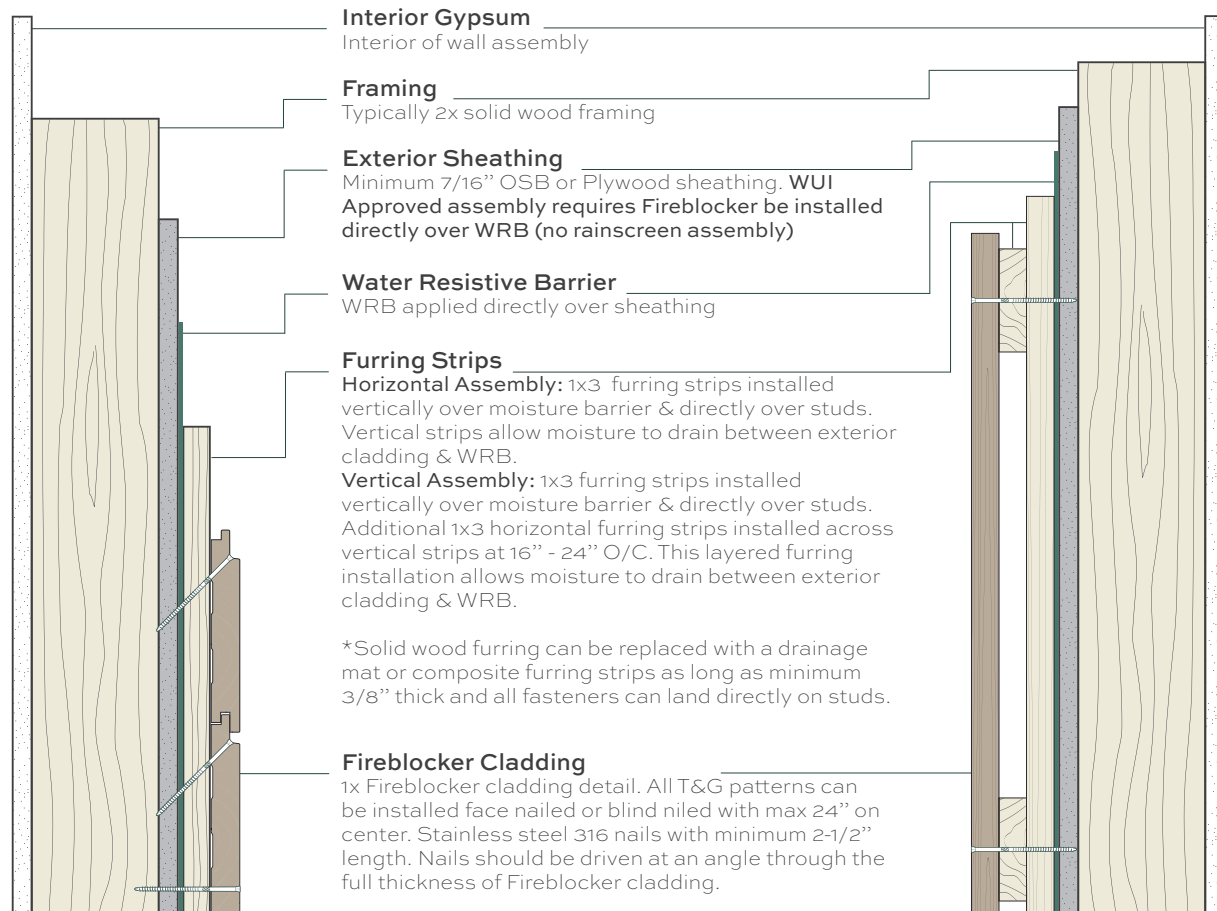
Fastening, Sizes & Use

When installing Fireblocker, keep in mind that finishing nails, brad nails and staples are NOT approved for exterior installation.

- Recommended nail length: 2-1/2" (minimum 1-1/2" into nailable substrate)
- Standard fasteners per board: Refer to Nailing Schedule
- Fastened at every stud

These are the minimum recommended fastening requirements. Please consult local building regulations that might require other dimensions or fixing types.

Horizontal Assembly (Side View)   **Vertical Assembly (Side View)**

Interior Gypsum
Interior of wall assembly

Framing
Typically 2x solid wood framing

Exterior Sheathing
Minimum 7/16" OSB or Plywood sheathing. **WUI Approved assembly requires Fireblocker be installed directly over WRB (no rainscreen assembly)**

Water Resistive Barrier
WRB applied directly over sheathing

Furring Strips
Horizontal Assembly: 1x3 furring strips installed vertically over moisture barrier & directly over studs. Vertical strips allow moisture to drain between exterior cladding & WRB.
Vertical Assembly: 1x3 furring strips installed vertically over moisture barrier & directly over studs. Additional 1x3 horizontal furring strips installed across vertical strips at 16" - 24" O/C. This layered furring installation allows moisture to drain between exterior cladding & WRB.

*Solid wood furring can be replaced with a drainage mat or composite furring strips as long as minimum 3/8" thick and all fasteners can land directly on studs.

Fireblocker Cladding
1x Fireblocker cladding detail. All T&G patterns can be installed face nailed or blind niled with max 24" on center. Stainless steel 316 nails with minimum 2-1/2" length. Nails should be driven at an angle through the full thickness of Fireblocker cladding.

Soffit Fastening (T&G)

Along with moisture management, proper fasteners & fastening schedules are two of the most important components of a successful installation.
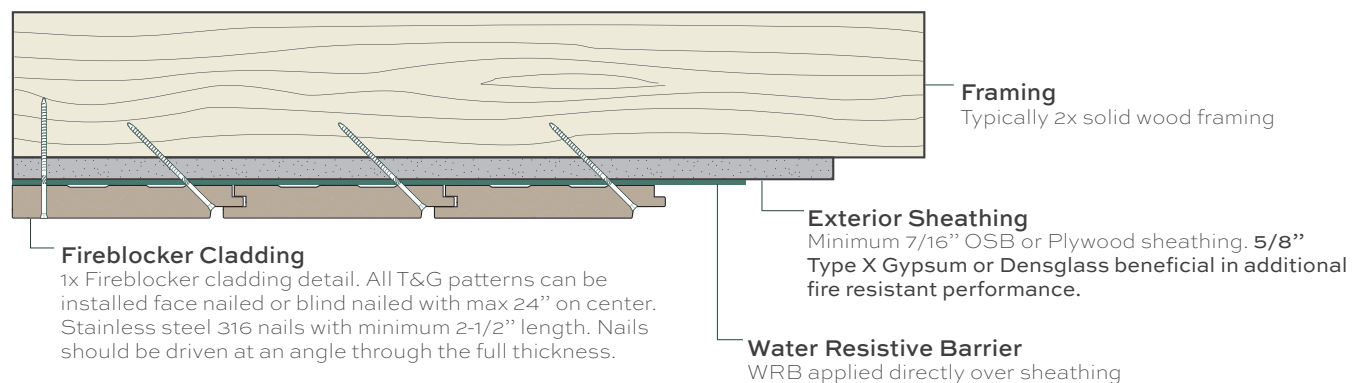
Fastening, Sizes & Use

When installing Terratek T&G in soffit assembly, keep in mind that finishing nails, brad nails and staples are NOT approved for exterior installation.
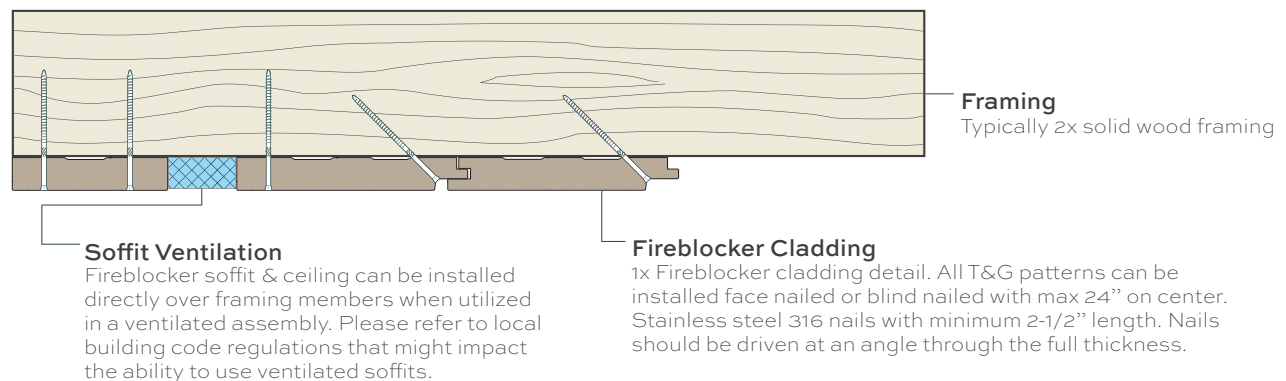
- Recommended nail length: 2-1/2" (minimum 1-1/2" into nailable substrate)
- Standard fasteners per board: Refer to Nailing Schedule
- Fastened at every stud

These are the minimum recommended fastening requirements. Please consult local building regulations that might require other dimensions or fixing types.

Under Eave & Soffit (Non-Ventilated Assembly for WUI)

Framing
Typically 2x solid wood framing

Exterior Sheathing
Minimum 7/16" OSB or Plywood sheathing. **5/8" Type X Gypsum or Densglass beneficial in additional fire resistant performance.**

Fireblocker Cladding
1x Fireblocker cladding detail. All T&G patterns can be installed face nailed or blind nailed with max 24" on center. Stainless steel 316 nails with minimum 2-1/2" length. Nails should be driven at an angle through the full thickness.

Water Resistive Barrier
WRB applied directly over sheathing

Under Eave & Soffit (Ventilated Assembly)

Framing
Typically 2x solid wood framing

Soffit Ventilation
Fireblocker soffit & ceiling can be installed directly over framing members when utilized in a ventilated assembly. Please refer to local building code regulations that might impact the ability to use ventilated soffits.

Fireblocker Cladding
1x Fireblocker cladding detail. All T&G patterns can be installed face nailed or blind nailed with max 24" on center. Stainless steel 316 nails with minimum 2-1/2" length. Nails should be driven at an angle through the full thickness.

*Soffit & eave assemblies shown above are general assembly guides. Not all under eave & soffit assemblies have the same construction.
*Non-Ventilated Assembly required for usage in WUI Zones.

Field Joints

For aesthetics, field joints should be located throughout each elevation without a recognizable pattern. If a pattern is used, ensure that field joints on adjacent siding courses are spaced at least 2 stud bays apart.

- Cut ends at 45 degree angles to form an overlapping joint and ensure that all joints meet over studs, blocking or furring strips and that fastener penetration requirements are adhered to.
- For vertical installations, ensure that the joint is oriented to direct water to the exterior of the wall.
- When blind nailing, an additional face nail on each side of the joint is recommended to prevent the joint from opening.
- Drill pilot holes near the ends of siding/paneling to prevent splitting.

Joints must occur over solid framing or locations that provide the required 1 - 1/2" nail penetration into furring strips, sheathing and/or studs.

Corners

There are three installation methods for outside corners. Adhere closely to the following instructions per method:

Mitered Corners: Ensure that the joint is tight to prevent moisture from entering into the end grain of the siding (remember to re-coat/seal all end grain prior to installation). To prevent splitting, re-drill holes (near the corners) for the fasteners. Note: use an appropriate adhesive on any mitered corners.

Siding Installed Next to Corner Boards: Leave a 1/8" gap between siding and corner boards to allow for a properly applied bead of caulking or sealant between the two materials. Follow caulking or sealant manufacturer's instructions.

Corner Boards Installed over Siding: Do not apply caulk or sealant at the joint between the corner boards and the siding, with this installation method.

Flashing

Flashing acts as a critical component of the wall assembly. It prevents water from entering past the first line of defense and also allows infiltrated water to drain.

- Install horizontal metal flashing above all wall penetrations (or as per window and door manufacturer's instructions) and projecting wood trim, prior to siding installation.
- Ensure flashing is installed with a positive pitch to prevent water from pooling on its surface and to shed water away from the wall.

Siding must be installed a minimum a quarter inch above all flashing and applying caulking or sealant is not a replacement for flashing.

Caulking

- Use an exterior grade high-performance acrylic-latex, acrylic-silicone, acrylic, polyurethane, or polysulfide caulk/sealant to seal gaps around windows, doors and where siding meets vertical trim.
- Caulking and sealants are not a permanent solution and require maintenance to prevent failed caulking from allowing water ingress into the wall assembly.
- Never seal areas that will prevent moisture from exiting the exterior envelope such as under windows and around metal flashing.

Note: Silicone caulks are not recommended for use with redwood.

End Grain Sealing

The end grain of lumber absorbs water over 100 times faster than any other wood surface. For this reason, it is imperative, that the end grain of your siding be sealed. If not sealed with an adequate coating, the end grain will absorb moisture and cause staining to the surface of your siding, as tannins and extractives leach from the natural redwood.

Note: All end grain and job-site cuts must be sealed to prevent water absorption.

Maintenance

A number of components on your home's exterior require regular inspection and maintenance to optimize the performance of your engineered siding and paneling:

- Inspect the caulk and sealant and reapply as necessary to prevent water ingress
- Keep gutters and roof areas free of debris
- Ensure downspouts are flowing freely
- Keep the surface of your siding free of mold, mildew, algae and other biological growth
- Garden beds are to be kept 8" below siding
- Prevent trees, plants, and shrubs from growing up against siding
- Ensure that sprinklers do not spray water onto siding
- Inspect and maintain the coating/finish on the siding

Note: Proactive home maintenance is less expensive than reactive home maintenance.

Finishes for Siding

We recommend the application of an exterior rated finish (exterior applications) & interior rated finish (interior applications) to all sides of the product prior to installation as a best practice. Always follow the coating manufacturer's application instructions.

 ENSURE THAT END GRAIN IS SEALED PRIOR TO INSTALLATION, INCLUDING JOBSITE CUTS

The aesthetics & service life of any coating or finish is directly dependent on the quality of the coating being applied & the quality of the preparation & application. A professional factory finish application will generally provide the best results. As with any planed wood product, lightly sanding the material prior to the finish application is important to maximize coating adhesion. Always ensure the surface to be painted is free of dust or mildew.

Note: Grain raise is a natural occurence in wood, sand and spot prime as needed.

Note: Product color & factory applied finishes are not covered under the product warranty.

Note: Finish should be applied immediately after installation.

Warranty

Fireblocker cladding is covered under a limited 30-year Warranty. This warranty is made to the original purchaser of the Product(s) (the "Purchaser"); the original owner of the structure on which the Product(s) are installed; and to the next owner of that structure (together "Owner"). Fireblocker express warranties may not be assigned to any subsequent owners of the structure.

Fireblocker warrants that the Product(s) will remain free from rot & fungal degradation for a period of 30 years from the date of purchase. These warranties only apply to above-ground installations made in accordance with the instructions.

Failure to follow proper installation & finish practices will negate product warranties.

Wood is a product of nature, so individual pieces vary in performance. Siding & eaves are singular components of a building. The performance is dependent on many critical factors including the structure's design, the craftsmen's skills, the use of other material, the products exposure & the climate. The manufacturer & merchant have no control over these variables. Following this manual will help in achieving satisfactory performance under most conditions; however, it will not guarantee flawless performance. Please refer to manufacturer's warranty for additional information.