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TONGUE-AND-GROOVE PRODUCTS – Porch Flooring; ALSO: Paneling, Siding, Soffit, Ceiling – INSTALLATION GUIDELINES:

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Important facts – T&G Products:

- * All our T&G profiles are traditional products that have historically been made with many other species, such as: Douglas fir, cedar, Eastern white pine, Yellow pine, or others. Proper installation procedures for our products are typically the same as for the traditional products they replace.

- * Installation procedures for exterior applications may vary from those for interior use. If you are uncertain about any aspect of your project, consult with a contractor, with your local lumber dealer, or contact us by email via our website.

- * Some of our products have reversible profiles that can be used with either side facing outward. These may be used for a variety of purposes, such as: porch flooring, siding, soffit, ceiling, or paneling.

- * All our T&G products are kiln dried. They are designed with a small expansion allowance engineered into the tongue-and-groove joint. Some experienced craftsmen believe that paneling, siding, ceiling and soffit applied with the v-edge or edge bead facing out (exposed), should be slightly spaced, side to side, using a thin metal ruler as a spacer.

- * **T&G products** should always be coated with a finish, to **prevent absorption of moisture**. Be sure to use the correct finish for your individual project. Be sure, as well, to “balance” your lumber, by coating both sides, and all surfaces of each piece at the same time. If you are uncertain of the best practices for finishing lumber, consult an expert. You may contact us via email with questions.

- * Remember that all wood products can expand and contract as temperature and ambient moisture rise and fall. Best practice is to install T&G products when both temperature and humidity are moderate. These should not be installed during periods of high heat and humidity, or when it is cold and dry.

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Important facts – Tongue-and-groove Porch Flooring:

You may wish to also download and study our installation procedures for decking, as well.

Blue Star porch flooring is designed to be used as an alternative to traditional Douglas fir, or other wood porch flooring. It is intended to be installed and maintained the same as Douglas fir. T&G porch flooring is for use in constructing **fully covered, exterior porches**. It is not manufactured to specifications for interior flooring. It is not to be used as exposed decking, without a roof covering.

All our T&G products are kiln dried. They may expand slightly, side to side, if allowed to absorb moisture. Porch flooring should be primed with a **waterproof** paint primer, and top coated with **Porch Paint**, to prevent moisture absorption (see below).

Porch flooring should be butted tight, side to side, and end to end. If using a reversible profile with a v-edge one face, always install porch flooring with the **square face up**.

Porch flooring – job site preparation:

Blue Star products will be delivered to you clean and dry, with well-trimmed ends. Keep the lumber clean and dry prior to use. Stack lumber flat, and off the ground, until ready for use. Do not leave individual boards lying loose, exposed to the weather.

Porch flooring – site selection and preparation; ventilation:

Design and site preparation for porches are similar to those for decks. Porches should be elevated a minimum of 18” above grade, to provide ventilation.

Allow plenty of air to flow beneath the porch. If you skirt your porch, use lattice, or other “open” skirting or adequate venting that permits air to flow freely beneath the structure, and **cross ventilate**. Excessively hot, and/or moist air trapped beneath a porch can cause porch boards to slightly expand, side to side, and create small gaps between the boards. Stairs with wide spans should be ventilated, as well.

Provide sufficient drainage **beneath your porch**. Soil should be graded toward the outer perimeter, and should drain well. Porches built over concrete or gravel should be elevated and well ventilated.

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Posts, Newell posts, and decorative columns should be set with a 1/4" vent gap around them. You can conceal the gap with a piece of trim.

Porch flooring – framing and joist spacing:

Framing 12" on center will increase the strength of your porch, and significantly reduce any waste you may have. Industry best practice is to not exceed 16" on center, whether using 1x4 or 5/4x4 flooring. Always frame 12" on center when installing boards on a diagonal.

Best practice is to leave 1/2" of expansion space between your flooring and your house or adjacent structure. You can cover the space with a piece of trim.

Framing should have a slight pitch away from your house, to allow water to run off your porch, away from your house. Best practice is to set the pitch at 1/4" per foot.

Always frame in accordance with your local building code.

Fastening, nailing porch boards:

Standard best practice is to **blind nail** porch flooring boards with a 316-grade stainless steel, ring-shanked flooring nail. Nail above the top of the tongue, at a 45-degree angle. Nails should penetrate the joists/framing approximately 1-1/2".

We recommend nails over flooring cleats or staples, both of which may bend or break when trying to penetrate pressure-treated joists or framing.

Some installers choose to nail, and further secure porch boards with an adhesive. If this is your choice, place a quarter-size dab of Liquid Nails, or another appropriate polyurethane exterior-grade adhesive, on the joists where the boards will lie.

Painting your porch flooring:

Meranti porch flooring is intended to be painted, just as you would **correctly install** Douglas fir, or any other wood porch flooring. Meranti has many advantages when compared to fir. It is harder, and wears better. It accepts and holds paint better, and the grain does not raise after painting.

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Moisture allowed to enter tongue-and-groove boards can cause the lumber to swell slightly, side to side. This may create small gaps between the boards, or cause buckling (if excessive moisture is present.) **Prevent moisture** from absorbing into porch flooring by following the process detailed below.

The traditional best practice for finishing wood porch flooring is to:

* **Apply** one coat of oil-based primer (preferably alkyd oil) to the entire surface of all boards (faces, edges, ends). If alkyd oil paint is not available in your area, ask your paint professional for an appropriate alternative product that seals out moisture.

* **DO NOT prime your porch boards with a water-based paint. You must use a waterproof prime coat.**

* **For best performance-** After the first coat of primer is dry, apply a second coat of primer to only the bottom faces of your boards. (You may double prime the sides and ends, but this is not necessary. Do not clog the T&G joint with too much paint.) Do not put a second coat on the top face...yet.

* **When** the second coat of primer is dry, the boards are ready to install.

* **After installing** the boards, apply a top coat of high-quality “Porch Paint.” All major paint manufacturers produce a paint for this purpose. It will be specifically labeled “Porch Paint.” **Make sure the paint is compatible with your primer.**

* **Ask** your paint professional if their recommended Porch Paint can be used as your primer. If so, follow the recommendations above, using the Porch Paint. **Water-based porch paint is NOT SUITABLE for use as a primer coat.**

* **Always apply** a coat of paint to any fresh end cuts. Apply an extra coat to the exposed ends of any boards.

* **When** using any paint product, always follow the manufacturer’s instructions.

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Clear, or “natural” finishes for porch flooring:

NOTE THAT: Penetrating oil deck finishes – **Penofin, Cabot’s Australian Timber Oil, Messmer’s UV PLUS, Super Deck, Sikkens Cetol SRD**, and other such products – are **NOT** waterproof, and will not prevent the intrusion of moisture into porch flooring. These finishes are *water repellent – but not waterproof*.

We are not aware of any one-step (or, two-step), easy-to-maintain, clear or natural finishes that are currently available for porch flooring.

The only clear finishes that waterproof wood are film forming – such as: varnish, urethane, or lacquer-type products. We **DO NOT** recommend these finishes for porch flooring. They are difficult and messy to apply. They are slippery when wet. Some will “crackle” over time, when exposed to UV rays. They wear unevenly in high-traffic areas. Urethane can become “foggy” when exposed to sun and heat. Lastly – they can be difficult and time consuming to refinish.

Porch paint has been the industry standard treatment for over 100 years – with good reason.

We continue to search for new products that will provide a convenient clear finish option.

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