Installation Guide for Composite Decking

Composite decking is a popular choice for outdoor decks due to its durability, low maintenance, and eco-friendly properties.

Before commencing construction, consult your local regulatory agency for any specific code requirements in your area. For optimal results, adhere to these straightforward installation instructions, with particular attention to gapping, spacing, and fastener specifications.

Acclimation: We recommend that you acclimate at least 2 days prior to installation as acclimating boards will get rid of any unwanted shrinkage issues seen during and after installation.

Equipment Required:

- Drill/power screwdriver
- 3/16" drill bit for predrilling surface or pro plug screws
- Circular saw with carbide-tip blade
- 21/2" composite wood deck screws
- Tape measure
- Pencil
- Safety glasses / googles
- Gloves

<u>Please Note:</u>

- DO NOT use cordless impact drivers
- Set drill speed to 1500-1750 RPM
- Max torque not to exceed 23-inch pounds
- Pre-drill knots or dense hardwood

Safety Tips:

- Always wear safety goggles and gloves when cutting or handling composite decking.
- Use caution when working on elevated surfaces, and always follow proper safety procedures.
- Check local building codes and regulations before starting your project to ensure compliance.

Please Note: These composite deck planks are not suitable for structural use. They must not be used for primary load-bearing members such as posts, joists, beams, or stringers. The same common-sense precautions should be taken when handling composite deck planks as with wood or other building materials. Dust masks and eye protection devices are recommended to avoid possible irritation from sawdust and chips. Gloves will help protect hands. Hands should be washed after construction work.

Installation:

1. Prepare the Area:

Before you start, make sure the area where you'll be installing the decking is clean and free of debris. Remove any existing decking and inspect the substructure for any damage or rot. Replace any damaged or rotting boards.

2. Plan the Layout:

Plan the layout of your decking, considering any obstacles like trees, posts, or other structures. Measure and mark the area where the decking will be installed, ensuring it's square and level.

3. Install the Joists:

Composite decking should be installed on a solid substructure. Install pressure-treated joists spaced 16 inches apart (on center) for residential decks. Use joist hangers to secure the joists to the ledger board and beam.

Note: Residential parquet patterns and diagonal or herringbone designs all require joist spacing 12" (30.48 cm) on-center.

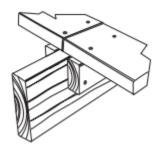
4. End to End Spacing:

Note: Always adhere to best practices in workmanship, which include, but are not limited to, ensuring both board ends are square cut before installation. Cutting all board ends prior to installation is recommended.

Ensure a minimum gap of 1/16" between board ends for every 20°F (-6°C) difference between installation temperature and the hottest expected temperature.

Board-End to Board-End Gapping Requirements												
	Warmest Annual Temperature Expected in Region (F/C)											
Temperature on Day of Installion (F/C)	F/C	20 / -7	30 / -1	40 / 4	50 / 10	60 / 16	70/21	80 / 27	90 / 32	100 / 38	110 / 43	120 / 49
	20 / -7	1/8	1/8	1/8	1/8	1/8	3/16	3/16	1/4	1/4	5/16	5/16
	30 / -1		1/8	1/8	1/8	1/8	1/8	3/16	3/16	1/4	1/4	5/16
	40 / 4			1/8	1/8	1/8	1/8	1/8	3/16	3/16	1/4	1/4
	50 / 10				1/8	1/8	1/8	1/8	1/8	3/16	3/16	1/4
	60 / 16					1/8	1/8	1/8	1/8	1/8	3/16	3/16
	70 / 21						1/8	1/8	1/8	1/8	1/8	3/16
	80 / 27							1/8	1/8	1/8	1/8	1/8
	90 / 32								1/8	1/8	1/8	1/8
	100 / 38									1/8	1/8	1/8
	110 / 43										1/8	1/8
	120 / 49											1/8

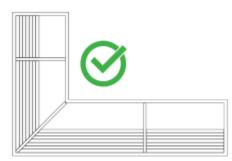
Use two fasteners per deck board at each joist. For any decking where two boards meet end-to-end over a joist, additional blocking must be used for proper board end support.



Maintain a 1/4" (0.64 cm) distance between all decking material and any permanent structure or post. After all decking has been attached, snap a chalk line (white or yellow chalk recommended) flush with or up to 1-1/2" (3.81 cm) out from the deck framing and trim with a circular saw. Composite decking requires proper ventilation and drainage to ensure longevity.

When using a minimum 2x6 joist standing on edge, with the suggested 1/4" (0.64 cm) side gap, there must be a minimum 2" (5.08 cm) clear space between the bottom edge of the joists and grade to allow for proper ventilation. Adequate drainage is also needed to prevent water from pooling under the deck.

Please Note: To maintain aligned gaps, it is essential to construct all sections of a split deck simultaneously. This approach enables you to accommodate the natural variation in board width as you progress. Begin by snapping a line to initiate the decking, then use a measurement every 2 or 3 rows from that original line as a reference.





Cutting:

- Employ a fine-toothed carbide trim blade for cutting.
- Utilize a sharp utility knife or jigsaw to complete cuts where a circular saw cannot fully finish the cut. (Mark the backside when necessary.)
- Employ a jigsaw with a blade featuring 8-12 teeth per inch to cut openings for protrusions.
- If required, utilize a large file or medium-grit sandpaper to refine cut edges.
- Use a utility knife to trim any fibers or strands.

(In the unlikely event that a strand or fiber protrudes from the board, avoid pulling it.) If you are using a painted blade, you can eliminate the paint residue with medium grit sandpaper.

5. Install the Ledger Board:

If you're attaching the decking to a house, install a ledger board along the house's exterior wall. Use lag screws to secure the ledger board to the house's framing, making sure it's level.

6. Install the Decking:

Start by installing the first board along the house or ledger board. Use composite decking screws to secure the board to the joists, placing the screws at each joist. Use a spacer to maintain consistent spacing between boards.

Please Note for Screws & Fasteners: For ease of installation, we suggest using 2-1/2" (6.35 cm) corrosion-resistant, composite wood deck screws. These screws help reduce the common "mushroom" effect that can occur with standard fasteners. Always pre-drill a pilot hole and countersink before driving screws. Screws should be driven flush with the decking surface. Avoid over-tightening. Use two fasteners per deck board at each joist. For any decking where two boards meet end-to-end over a joist, additional blocking must be used for proper board end support. Always pre-drill a pilot hole and countersink when using either composite or wood screws. Be cautious not to over-tighten screws near board ends.

7. Cut and Install the Remaining Boards:

Measure and cut the remaining boards to fit the deck's perimeter. Use a circular saw or miter saw to make precise cuts. Install the boards, ensuring they're spaced evenly and securely fastened to the joists.

8. Enjoy Your New Deck:

With proper installation and maintenance, your composite decking should provide years of enjoyment and beauty. Regularly clean the deck with a mild detergent and water to remove dirt and debris and inspect the deck for any signs of damage or wear.

Additional Information:

Color Variations:

Like other composites, deck boards may exhibit color variations from one piece to another. This is a result of natural variations in wood fibers and polymers. It is advisable to purchase all necessary decking material at once, as manufacturing runs can result in slightly different colors. If color variation is not acceptable, refrain from installation.

Mold & Mildew:

Mold and mildew can be a nuisance on any exterior building surface, regardless of the material. If the conditions are right, they will grow on wood, plastic, concrete, metal, and other surfaces. Mold formation is most prevalent in consistently wet, shaded areas. Spores from the natural environment are carried by the wind and commonly land on decks surfaces. It is important to note that the appearance of mold/mildew is a function of nature, not necessarily a deficiency with any of the material on which it grows.

Maintenace:

Regular washing with soap or mild detergent and water can effectively remove surface dirt and prevent the accumulation of pollen, debris, and spores that can lead to mold and mildew growth. However, it is important to exercise caution when using a pressure washer, as the abrasive nature of the water stream can potentially drive spores deeper into the material, making them more difficult to remove. If using a pressure washer, only use a fan-tipped nozzle and avoid blasting the surface.

There are numerous deck wash and exterior cleaning products available for purchase, but it is crucial to select a cleaner specifically designed for your application. Always read and follow the manufacturer's instructions carefully. Some cleaning products and inhibitors may be more effective than others, depending on the environmental conditions your deck is exposed to. It is also advisable to test the cleaner in a small, inconspicuous area before applying it to the entire deck.

When removing snow from your deck, use a plastic snow shovel without a metal edge or a stiff push broom to minimize the risk of damage to the deck surface. Light snow can be cleared using a leaf blower. Avoid attempting to break up or scrape ice from the deck surface; instead, use ice melt products when necessary. Ice melt products labeled "Safe for Pets" are generally safe to use on decks.

Mold Inhibitors:

Like deck washes, there are numerous mold-inhibitor products available from paint stores, hardware stores, online outlets, and home centers to help prevent long-term mold/mildew growth. When selecting a product, carefully read, understand, and follow all instructions provided by the manufacturer. Depending on the environmental factors affecting your deck, some preventive cleaning products may be more effective than others. It may be necessary to try more than one product. For ongoing preventive maintenance, follow the manufacturer's recommendation.