Optima Dekk Installation Instructions



Let Your Next Deck Be Your Last Deck - DuxxBak Composite Decking!

Planning

Optima Dekk is available in both square-edge, and grooved boards. In planning your project, you will want to figure which board is ideal for your installation situation. Optima Dekk grooved boards allow a virtually fastener-free surface using Optima Dekk hidden fasteners, while Optima Dekk square-edge boards must be face-screwed or altered to accept a hidden fastener. In most applications, it is recommended to use Optima Dekk square-edge boards for stair treads and perimeter & feature boards.

When installing Optima Dekk deck boards, it is a good idea to mix boards on site as you install them, to find the ideal variation of color tones. It's also good practice to allow the boards to acclimate to ambient temperatures before installing. This will minimize the effect of temperature-driven expansion and contraction of the deck boards.

Be sure to use the proper fastener for your installation. Use Genuine Green Bay Decking color-matched Optima Dekk Screws, and Optima Dekk hidden fasteners to ensure premium results.

Because of its unique core-composition of BioDac®, rice hulls, and other high-quality ingredients, Optima Dekk differs from wood- or PVC-based composites. Therefore, Optima Dekk has different handling and installation requirements that should be taken into consideration as you plan your project.

Read through this entire installation manual as you plan your project, and before beginning installation. Please call DuxxBak Composite Decking Customer Service at (877) 804-0137 if you should have any additional questions not covered in this manual.

Always consult with and follow local and regional building codes as you plan and undertake your deck project. Most municipal codes have very specific deck construction requirements and restrictions. Failure to follow these requirements can result in costly post-construction modifications.

Additionally, be sure to follow the instructions in this manual that specifically pertain to Optima Dekk products. Failure to do so may affect your DuxxBak Composite Decking Lifetime Limited Warranty.

It is always a good idea to consult with a decking professional, to assure a quality project using DuxxBak Composite Decking products. Call us directly at 877-804-0137 with installation questions, or to help locate a qualified installer of DuxxBak Composite Decking products.

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INSTALLATION TOOLS

Typical woodworking tools can be used to install Optima Dekk. A general list of tools you will need includes the following:

- Safety glasses
- Hearing protection
- Tape measure
- Circular saw (with 24-tooth carbide blade)
- Jig saw
- Pencil
- Chalk line
- Framing square
- Drill with a 5/32” bit
- Driver with clutch or screw-depth settings (to avoid overdriving screws)
- Utility knife



Unloading, Storage and Handling

Optima Dekk boards should be stored on a dry, flat surface with support every 48 inches. Do not stack Optima Dekk more than four skids high.

Expansion & Contraction

Every material expands and contracts as temperatures change, and composite decking is no exception. Avoid potential problems by allowing time for proper acclimation of Optima Dekk to local temperatures.

It is best to mark, cut, and install boards when they are all at roughly the same temperature. Boards that have been in the sun for several hours will have expanded more than those kept in the shade, and consequently will contract more when they cool.

If possible, install Optima Dekk during the coolest part of the day. Although the ideal temperature for installation is 60 degrees Fahrenheit, this is not always possible.

Thus, these steps help reduce the effects of expansion and contraction: storing boards in the shade; making final cuts after boards have cooled.

Framing Your Deck

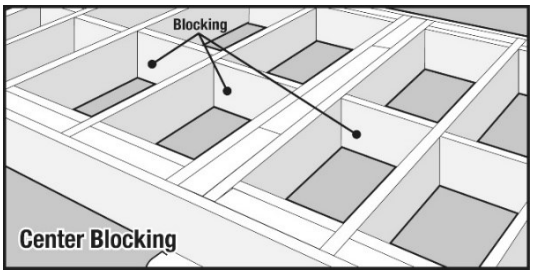
Layout your deck frame using techniques outlined in the most current International Residential Code (IRC), as well as local code requirements. Again, a decking specialist can best determine good framing practices for your project.

Joist Spacing

Optima Dekk boards can span joists installed at 16” on center, when installed perpendicular to the joists. Joist spacing must be reduced to 12” on center for diagonal Optima Dekk board installation. For additional details, see the PFS TECO Building Products Evaluation Report available on our website.

Blocking

While internal blocking is not required, it can help to establish and maintain structural stability and plane across the deck surface. Joists should be installed with 3 points of support. If the deck structure only features a ledger and one carrying beam, you should also install internal blocking (bridging).



Stair Stringers

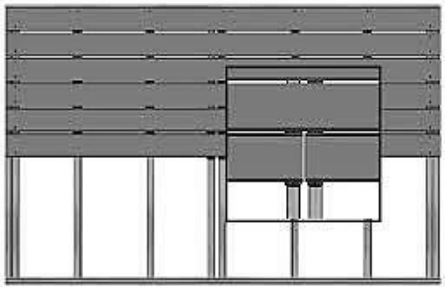
Optima Dekk boards can be used for stair treads, with adequate care taken for structural support. Stair stringer spacing should be 12” or less.

Ventilation

If a deck is constructed close to the ground, be sure to consult ventilation recommendations of the structural-material manufacturer. Optima Dekk boards do not require underdeck ventilation.

Butt Joints

If installing Optima Dekk boards using butt joints (end to end), double joists are required, so that no fastener is installed within 1” of board end. Sister joists may also be installed. The sister joist may be small dimension lumber such as a 2x4, as long as the sister joist is securely fastened to the structural joist.

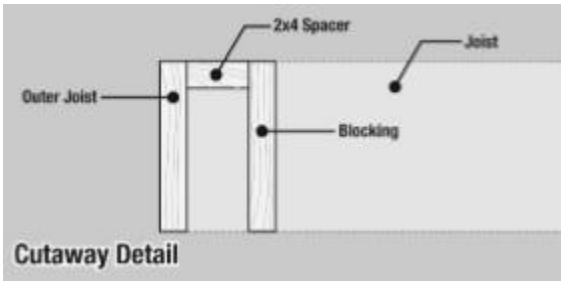


Be sure to allow minimum 3/16” gap between board ends—smaller if installation temperature is above normal, larger if below normal—as boards tend to expand with increased temperatures.

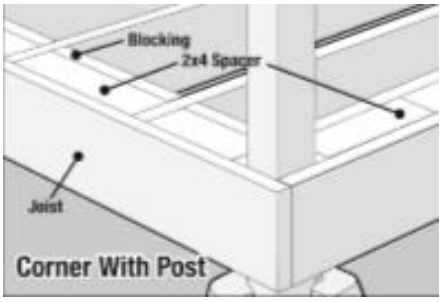
Perimeter or Feature Board Installation

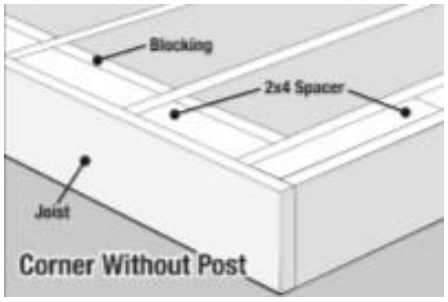
Perimeter or feature boards, using Optima Dekk square edge boards, can add visual appeal and character to a deck’s aesthetic appeal. Adequate support must be afforded to accomplish such design considerations. Be sure to install structural support to assure that Optima Dekk boards do not extend more than 1” beyond any supporting structure.

The below illustration shows framing designed to support a perimeter (picture frame) board. This setup provides structure to which you can attach a perimeter board, and also provides a structural landing to which you can attach the board ends.

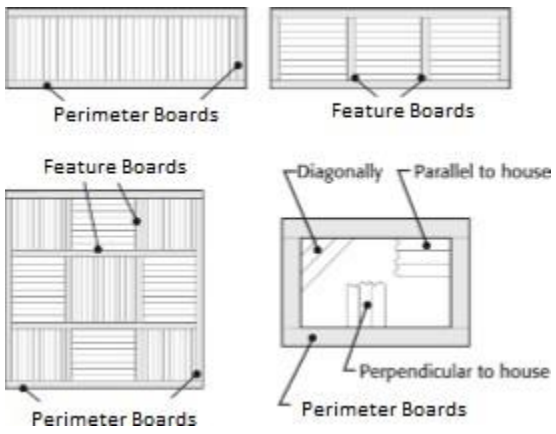


The two illustrations below show how to prepare your structure, at corners, to accept a perimeter board with and without an internal railing post. The same physical principles should be used to prepare your structure to accept a feature (ribbon strip) board, which can introduce aesthetically-pleasing elements into your deck, and can also facilitate installation of decking on a deck that is longer than available deck boards.





Below are some examples of where Perimeter and Feature Boards might be introduced.



Gapping and Spacing Optima Dekk Boards

When installing Optima Dekk, edge-to-edge board spacing must be a minimum of 3/16". Square-edge board installation will require the use of a secondary gapping tool.

End-to-end board spacing must also meet a 3/16" minimum gap, to allow for expansion and contraction of deck boards with variations in temperature. However, if you are installing Optima Dekk in extremely hot conditions, the gap may be reduced, as boards are likely to contract when the temperature cools. Alternately, if it is very cold at the time of installation, the full 3/16" must be allowed as the boards will expand when temperatures warm.

Fasteners Installation

Grooved Board Installation

When installing Optima Dekk grooved deck boards, only use approved fasteners listed in the fastener guide. Use of non-approved fasteners will void the product warranty.

Two approved face screws must be installed at each board end, in addition to hidden fasteners. See important face screw requirements below.

Two hidden fasteners must be installed per board end at butt joints, with one clip holding each board end. Also see above requirement for two face screws in each board end.

Square Edge Board Installation

All face screws must be predrilled with a 5/32" drill bit.

When installing Optima Dekk square-edge deck boards, use of Genuine Green Bay Decking color-matched Optima Dekk is required. Install 2 approved screws in accordance with the fastening guide per board at each joist.

Do not install screws within 1" of the side or end of any deck board. (Remember: Butt joints require double joists, which provides plenty of room to secure the deck board with screws at least 1" from the board end.)

Figuring your fasteners

Approved Hidden Fastener Attachment (See fastener table below)

You will need one approved hidden fastener attachment per board, per joist. (Plus, we recommend four Optima Dekk screws per board – see Optima Dekk Screws)

Optima Dekk Screws
You will need 2 screws per joist, per deck board, plus 2 additional screws per board (2 face screws at each end).

The following table can help you figure how many fasteners you will need.

NOTE: Additional fastener information shown on Page 8.

	Joists @16" OC	Square	Grooved
Screws	12' OPTIMA®	20	4
	16' OPTIMA®	26	4
	20' OPTIMA®	32	4
Clips	12' OPTIMA®		10
	16' OPTIMA®		13
	20' OPTIMA®		16

Care and Maintenance

Occasional cleaning will help to keep your deck looking fresh. A nylon bristle brush or broom will make the task easier. A pressure washer with a fan tip may be carefully used to clean your deck if it is guided along in the direction of the grain at a consistent height above the deck. A Water-Broom can be used to assure even coverage and a consistent result. Always test a small area to assure that the surface texture is not damaged. Always follow safety precautions.

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DuxxBak COMPOSITE DECKING

Fastener Selection Guide

Application			Product Profiles							
Substructure	Fastener Type	Fastener Source or Manufacturer	DuxxBak Dekk	T&G Dekk / Dekk HD	S4S Dekk / Dekk HD	Feature Strip / Perimeter Strip	Optima Dekk	Optima Dekk LT	CommercialDekk	Fascia
Wood Framing	Coated Screws for Engineered Profiles (NOTE 2)	DuxxBak Composite Decking Trim Head Screws-Coated DuxxBakDecking.com (NOTE 1)	#8×1⅝" (or longer) (NOTE 3, NOTE 4)	#8×2½" (or longer)	#8×2½" (or longer)	#8×3" (or longer)	N/A	N/A	#10×3" (or longer)	#8×1⅝" (or longer)
		GRK Finish Trim Head Screw GRKFasteners.com	#8×1¼" (or longer) (NOTE 3)	#8×2½" (or longer)	#8×2½" (or longer)	#8×3" (or longer)	N/A	N/A	#10×3" (or longer)	#8×1¼" (or longer)
	Stainless Screws for Engineered Profiles (NOTE 2)	U2 Fine Screw U2fasteners.com	#8×1½" (or longer) (NOTE 3)	#8×2½" (or longer)	#8×2½" (or longer)	#8×3"	N/A	N/A	N/A	N/A
		GRK Finish Trim Head Stainless Steel Screw GRKFasteners.com	#8×2½" (or longer)	#8×2½" (or longer)	#8×2½" (or longer)	#8×3⅛"	N/A	N/A	N/A	N/A
		Simpson Strong Tie Finish Trim Screw Strongtie.com	FT07112Txxx #7×1½" (or longer)	FT07212Txxx #7×2½" (or longer)	FT07212Txxx #7×2½" (or longer)	FT07300Txxx #7×3"	N/A	N/A	N/A	N/A
	Hidden Fastener System	DuxxBak Composite Decking Camo Clip Hidden Fastener DuxxBakDecking.com	N/A	N/A	N/A	N/A	With grooved board	With grooved board	N/A	N/A
		Tiger Claw Hidden Deck Fastener Fastenmaster.com	N/A	N/A	Part # TC-3S	N/A	N/A	N/A	N/A	N/A
	Coated & Stainless Composite Screws for Solid Profiles	DuxxBak Composite Decking Optima Screw Coated DuxxBakDecking.com (NOTE 1)	N/A	N/A	N/A	N/A	#10×2¾" (or longer) Color Match Heads (NOTE 5)	#10×2¾" (or longer) Color Match Heads (NOTE 5)	N/A	N/A
		DuxxBak Composite Decking Optima Screw Stainless Steel DuxxBakDecking.com (NOTE 1)	N/A	N/A	N/A	N/A	#10×2¾" (or longer) Color Match Heads (NOTE 5)	#10×2¾" (or longer) Color Match Heads (NOTE 5)	N/A	N/A
Steel	Stainless Screws for Engineered Profiles (NOTE 2)	Simpson Strong Tie Self-Drilling Siding Screw Strongtie.com	F07T162Txx #7×1⅝" (or longer) (NOTE 6)	F07T225Txx #7×2¼" (or longer)	F07T225Txx #7×2¼" (or longer)	F07T225Txx #7×2¼" (or longer)	N/A	N/A	N/A	F07T162Txx #7×1⅝" (or longer)

NOTES	
1. Use Genuine DuxxBak Composite Decking Fasteners for premium results.	4. For the DuxxBak Dekk starter boards, #8×2½" (or longer) screws are required.
2. Do NOT use composite screws, standard deck screws, or any screw with a reverse thread near the head of a screw for ANY engineered profiles.	5. All screw locations for Optima Dekk and Optima Dekk LT must be pre-drilled with a 1/8" drill bit.
3. When installing ArmorCap DuxxBak, mounting clips are required. Refer to Installation Instructions.	6. DuxxBak mounting clips are required at each screw location for steel substructure.
	7. For applications outside these recommendations, contact us at (877)804-0137.