



GARRISON

# IPE DECKING

INSTALLATION SHEET



## **Where to use Ipe wood**

Our Ipe is generally Kiln-dried, perfect for outdoor projects such as playgrounds, decks, sheds, planter boxes, outdoor furniture or even siding. There are many more appropriate uses. Just use your imagination! This wood is perfect for almost any application! And yes, it can also be used indoors, but is most frequently used outside!

## **The best Ipe wood for your application**

There are three basic styles of Ipe wood. One is pre-grooved Ipe wood decking, which allows for a clip between boards. Two, standard style. And three tongue and groove boards. One of them will be perfect for your project. Be aware that Tongue and Groove (T&G) wood decking should only be used under a covered porch or patio. When tongue and groove are

used without protection, too much water can accumulate. This can cause your Ipe wood to buckle, swell, and cup. Standard and regular pre-groove can be used without additional protection and are the woods most frequently used for projects exposed to the elements.

## **Getting the wood ready to install—acclimate your Ipe wood!**

Ipe wood needs to acclimate to the local conditions (humidity and temperature). This is true of any hardwood. This means it needs to sit near where you will be installing it to adjust to its new climate. Leave it there for a least seven (7) days or longer if you are in a drier climate.

## **How to acclimate your Ipe wood—a list of do's and don'ts**

We recommend you store Ipe wood on blocks of wood. Do not sit Ipe wood directly on or near the ground or on a block of concrete so that it can acclimate. It must be stored a minimum of 12 inches from the ground to let the boards underneath get enough ventilation. If it is not interacting with the environment, it is not acclimating!

Cover Ipe wood with plywood during the acclimation process. Do NOT cover the Ipe lumber with any tarp or any plastic. These trap water and moisture and can create stability issues. Ipe must be kept dry until it's installed.

For Air Dried, Never store it in an enclosed space, such as a garage or any other enclosed area.

Proper ventilation is best achieved by separating the rows of boards with wooden shims. The more air can move around the boards

before installation; the more acclimated the wood will be for your project.

## **Installing your Ipe Wood Deck—Important Considerations**

Just like with any other outdoor project (whether it be a deck or a shed, etc.), planning is critical to protect both the project and the environment where the project will be placed. Here are some important considerations:

### **Joist spacing**

Make sure you plan adequate space for your joists. The following are sizes that should not be exceeded.

Both a 1 x 4 board and a 1 x 6 board need a Joist spacing of 16 inches on the center maximum.

5/4 x 6 maximum of 24 inches.

2 x 6 needs a maximum of 32 inches.

Ipe Dimension	Maximum Joist Spacing
1x4	16"
1x6	16"
5/4x6	24"
2x6	32"

### **Pitch**

If you have ever seen a house that didn't have the proper pitch going away from any structure or house, you have seen a home with water problems. Not only must the ground slant with the proper pitch, but any substructure must also be tilted away from any structure or

house to prevent flooding during rainstorms. It is recommended that a minimum of ¼ inch pitch per ten feet of decking for standard Ipe lumber. Tongue and groove lumber require a steeper pitch because it is critical for the water to run off the larger surface. For optimal results, we recommend ¼ inch per foot when using tongue and groove. Install framing material with a crown (the side with the bumps) up to help with draining water. Standing puddles on a deck can cause the surface to cup. That is why the pitch is so important and the first factor in the installation that we stress. Only 1/8th of an inch can cause standing water to pool, which drowns the wood. Proper pitch means proper drainage, protecting both the new structure and the home.

1/4" for every 10'

### **Location**

Remember, don't install hardwood decking over any concrete. That

can cause a deck to begin cupping and other issues because of moisture retention. Make sure you have room for framing materials, leaving enough room for the wood to breathe.

### **Gap**

Leave a space/gap of 3/32" between the boards with Ipe decking. This provides the necessary ventilation and allows room for the boards so they can expand and/or contract due to heat, cold, or moisture. You will probably get some shrinkage after installation. Shrinkage varies due to the humidity of the local climate, how the boards are used, and where they are installed. We anticipate that four-inch wide boards typically shrink about 1/8 inch and six-inch boards about 1/4 inch.

### **Airflow**

Design your deck for good airflow underneath your wood. The best option is to allow 18" of

unobstructed air under the joists.

Open sides allow for cross ventilation. When using skirting, do not block the airflow. These precautions will add stability, eliminate cupping, and minimize the Ipe wood's natural movement.

Never allow water to pool under or on the deck. Slope the ground to drain water from the deck and/or main structure. Again, DO NOT build your Ipe wood deck over concrete slabs or blocks, ever! Concrete causes water retention, and this will make boards begin cupping and crowning.

### **Sealing**

To stabilize the wood, Ipe Woods USA deck lumber is typically shipped having the ends sealed with special clear wax. This prevents any adverse movement and ends checking. When you make fresh cuts, you should have them sealed with wax within 24 hours with an end-grain sealer. We sell this in quart containers that will

usually cover about 500 square feet of decking. Easy to apply, it dries clear. This sealant is not for the decking surface. If any end sealant touches the face of the board, wipe it up immediately!

### **General recommendations**

The adage in both sewing and woodworking is, “Measure twice, cut once.” This adage has never been truer than with Ipe wood. Pre-drill holes. You’ll get the correct angle, and it will be easier to avoid cracks or fissures in your wood.

Ipe wood can be either finished or unfinished. Either is lovely. Choose what fits your style the best. If you want to finish it with oil, we recommend a product in our Products section. You do need to oil it at least once after installation, even if you are choosing to go the unfinished route.

### ***Products we recommend using with Ipe wood***

#### **Saws and drill bits**

As we mentioned before, Ipe lumber is called ironwood. This hard and dense wood needs special saws and drill bits. Just a repeat to help you find the information...for sawing, go with premium carbide-tipped saw blades. For drilling, we recommend Brad Point or Fostner drill bits for a cleaner hole.

### **Installation of Your Ipe Deck**

#### **Fasteners and screws**

There is one type of fasteners and screws we recommend for Ipe wood, stainless steel. Any other fasteners can ruin the appearance and finish of your Ipe wood deck. If using stainless steel, make sure you have 305-grade stainless steel or higher. Stainless lower than 305 will discolor any wood that is around the screw or fastener, and hardware is likely to corrode or fail. When attaching decking boards, pre-drill. The only exception to this is if you are using Protech coated

screws and the Camo Edge Fastening system with expert-level experience. Even so, we recommend you pre-drill your boards to make sure you avoid cracking the wood. Pick a screw size and pre-drill your holes. If you don't, the boards can split due to their density and eventually become loose. A split can cause non-repairable damage.

This has a few advantages.

- Only have to pay for the screws and one tool.

- Easier to repair boards or replace boards in the future.

- Faster installation.

- No predrilling (expert level, officially we still recommend predrilling) Using the Protech screws, no pre-drilling is required, thus saving time.

- No need to pay extra for pre-grooved boards.

  - Pregrooved boards lose some thickness and width in the milling process (depending on the molder used). Not the case when using this system.

We like the Ipe Clip® hidden deck fasteners. This excellent system allows expansion and contraction of the wood, prevents deck blemishes, and avoids too much pressure going onto the screws. It is designed to help keep the wood safe from water damage and splinters. Be sure to follow all the directions that come with your product.

If you are curious about the Ipe Clip®, here is a good video showing the installation.

[How To Install Ipe Clip® Hidden Deck Fasteners](#)

### **Other Options (Less Recommended)**

**Face Screw and Plug Method** For this one; you countersink holes 3/8" into the deck boards' face. To make things go fast and easy, pre-drill pilot holes 1/8" through the boards. Use stainless steel (305 grade or higher) screws to screw the boards down. Glue (use a

waterproof glue such as Gorilla brand or epoxy) 3/8" matching Ipe wood plugs in the holes. Knock the plugs off with (usually using a chisel) then sand smooth, using 80 or 60-grit sandpaper **Finish Screws** In this method #7 or #8 stainless steel screws (trim-head) are screwed into the deck boards. Use two screws per joist. On these screws, the head is so thin and small that you hardly notice it. Torx-driven screws strip less from the board than other types.

### **Tongue and Groove for Porches**

This type of decking is for use ONLY with covered porches or patios. With this method, Ipe decks, patios, or porches don't have to be only for spring and summer use now. With things covered, you can enjoy them year-round.

Tongue and groove deckings' only option is to have it directly on top of

your floor joists. The deck needs ventilation underneath, so you can't install them directly on any subfloor. The lumber needs to be covered and also will need a pitch away from the house for drainage. There are no gaps in tongue and groove decking, just like interior hardwood floors.

Pre-drilling a hole at a 45-degree angle in the board at the place where each board's tongue and face come together. You'll see a very slight v-groove in the corner. Then place a trim head through that same hole. It must be trim head screws. The screw will sink into the groove, and this allows you to slide the next board right into place, concealing the screw head and giving a smooth connection.

### **Finishing Your Ipe Deck**

The best finish for Ipe wood is Messmers U.V. Seal. Many oils and finishes may not properly work on Ipe. They don't dry right and

that ruins the whole effect. If you want to use an oil or finish, test it on one side of a few boards before applying. Messmers U.V. Seal is formulated for Ipe wood, so it matches the special needs of this denser lumber. It is the only finish we recommend.

Whether you choose to allow your deck to go to a lovely silver-grey color, or if the customer wants to keep it a rich, dark color, we recommend using Messmers U.V. immediately after installing. This helps the wood keep its natural oils and also helps it stabilize. If you have a low ventilation installation, the finish should be put on all sides before installation (although after acclimatization). Either color is gorgeous, and maintenance is low. For the richer color, you only have to apply the oil once every couple of years.

### **Glues**

When gluing your ipe/hardwood plugs into your deck boards, we

recommend waterproof polyurethane glue. Another excellent choice is epoxy glue, because it can be stained to match the deck, plus it has a strong bond that is also waterproof to further protect your lumber.

***Choices, choices, choices: the right deck style for you!***

### **Which style of deck should you choose?**

#### **Traditional uncovered outdoor decks**

Traditional outdoor decks are exposed to the elements all year long. Either standard or pre-grooved Ipe deck boards are the perfect choice for a traditional outdoor deck. Personalize your choice with the pitch, gap, and finish that expresses your unique style. Remember, when you install your Ipe wood, leave a space of 3/32" in between the boards for air-dried lumber, and a max of 1/4" for KD (kil-dried).

### ***Covered exterior decks and also interior applications***

The tongue and groove do not leave a gap between the boards. As mentioned before, the tongue and groove can only be used where there is an exterior protecting cover, such as a roof. It has a more finished look, similar to an interior floor. With Ipe wood, this type of application can now be used outside due to the durability of Ipe. Covered porches and patios can now be used all year long. When choosing how you will fasten the boards to your frame, consider the look you want on top. Both of the Camo systems we recommend are very discreet in the way fasteners are hidden. Our favorite system, the Camo Hidden Clip system, leaves the boards with no visible holes. The Camo Edge Fastening system is also excellent. It comes with a tool that guides you for each drilled hole, and screws are discreetly placed so they are

hardly seen. Both systems are great with  $\frac{3}{4}$  " or even thicker boards.

There are several other options for fastening your deck. With standard boards or grooved boards, you can use finish screws, or even screws where you insert a plug to cover the screw hole. These methods can also be found on With finish screws, you drill two screws per joist (#7 or #8 stainless steel screw, we recommend Trox because they strip out less wood) in the boards. The holes are small and not visible. With the plug method, you begin by drilling a 1/8-inch hole to start, then insert the screw. After, you glue a small Ipe wood plug into the hole, sanding, chiseling, or cutting off any part that is not flush with the boards. Make sure you use stainless steel screws, grade 305 or higher, and waterproof glue, such as a Gorilla brand or a good epoxy, to insert the plus.

Tongue and groove decking must have ventilation underneath. It can only be installed on top of the floor joists. That means you can't install tongue and groove on a subfloor. Make sure the lumber is covered and the pitch is away from the house for drainage. Pay attention to the pitch. It looks like an interior hardwood floor because there are no gaps, and so the pitch is steeper than with standard or grooved boards. There is a slight v-groove in the corner. Pre-drill a 45-degree angle hole where the tongue and face meet. Finally, drive a trim-head screw through the same hole. Only use trim-head screws. The screw will go into the groove. When you place the next board, it will conceal the screw head. The result is the wonderful look of an interior floor outdoors. The boards will fit together smoothly.