

Mataverde® Decking, Lumber, and Siding Terminology and Glossary

This glossary is designed to provide you with quick answers that explain many of the decking and siding terminology and industry terms used on our website. We hope you find this guide helpful.

Acclimation: Allowing wood materials to adjust naturally to their new environment to achieve EMC (Equilibrium Moisture Content). Most of the acclimation of outdoor wood species occurs rather quickly on site. When material is allowed to [properly acclimate on site](#), most of the wood movement has happened. Generally, the thicker the wood, the longer the acclimation time required to achieve EMC. After the initial acclimation period, seasonal changes will occur, but to a lesser extent.

Air dried: Refers to wood that is allowed to dry naturally, without using kilns. Some wood species, such as Ipe hardwood, air dry exceptionally well with minimal movement.

Apuleia leiocarpa: Scientific name for [Garapa](#), a high density tropical hardwood native to Brazil and other regions of South America. (see Garapa)

Beam: Refers to a horizontal framing member, often supporting joists or other horizontal structural components.

Bottom course: refers to the first row of horizontal siding. Setting the first row of siding level, makes all the additional rows (courses) of siding line up much better.

Brazilian Cherry: common term used to identify Jatoba wood

Building envelope: The outside boundary of the insulated portion of a building or structure.

Bull Nosing: Rounded edge feature often used for stair treads and sometimes for top railing edges.

Butt Joint: Where the ends of two decking or wood siding boards meet. On a deck, these "butts" will typically share the same deck joist.

Chatter marks: Marks made on boards during the planing or surfacing process when the material is milled. They occur perpendicular to the length of the board. Also referred to 'skip planing', 'planer marks' or 'mill marks', excessive "chatter" is a milling imperfection. Minor chatter marks can be sanded out. Deep chatter marks are typically 'defected' out of a board by cutting the board to a usable length.

Climate-Shield: [Climate-Shield](#) is the brand name of a rainscreen system using marine grade aluminum clips and components to create a rainscreen that does not require furring strips.

Composite decking: The name for wood plastic composite material (WPC). WPC is composed of a mixture of finely ground plastic (virgin or recycled) and finely ground wood particles, referred to as 'wood flour'. Due to its microscopic size, wood flour is highly reactive to moisture, mold, and mildew. Unlike natural wood boards, composite decking has no graining and fiber strength, making it very weak with extremely low span capacity.

Compressive strength: The measure of how strong a wood species is when put under stress along its length.

Contraction: Refers to the size change (shrinkage) experienced when boards lose their moisture. Natural wood boards contract only slightly along their length (linear) and more so along their width (radial). Composite and plastic decking expand and contract significantly along their length and width dependent on temperature. During cold temperatures, synthetic decking will shrink significantly, often creating large gaps. In hot weather, plastic decking shows major expansion, sometimes causing buckling at butt joints and miters.

Crook (or Hook): Is a bend in a board from side to side.

Cumaru: A high density exotic hardwood species with the scientific name *Dipteryx odorata*. This species is extremely hard and dense, coarsely grained and ranges in color from yellow brown to reddish brown to an almost purplish cordovan. Due to its amazing physical characteristics and exotic beauty, [Cumaru](#) is often used for boardwalks, walkways, esplanades and outdoor decks.

Cupping: The uplifting of the edges of decking or other boards due to excessive moisture below the material. When decks are designed and built too low to the ground or without proper ventilation, the boards may 'cup' towards the sun, due to the stress of too much moisture on one side of the board and too little on the other side. This condition can be minimized by providing adequate ventilation and using screws for installation.

Deck Joists: Structural members that support the decking material above them. Generally, they are spaced 12", 16" or 24" apart from one another (on center). Because hardwood decking is significantly stronger than other decking material options, wider joist spans can be successfully used while maintaining the strength of the deck structure. Synthetic decking requires joists to be spaced much closer together.

Decking material: Describes the actual surface of the deck structure. As this portion of the deck is the most visible portion of the deck, care should be taken to assure that the right material is selected.

Decking Oil: refers to exterior grade oil sealants and finishing products that are used to help exterior hardwood decking or siding materials season on site. With high density hardwoods, periodic re-oiling is required to help maintain the “like-new” wood look.

Defecting: The process of cutting a board to its usable length by removing any defects such as worm holes, knots, chatter marks, mill marks, or any other undesirable appearance concerns. Proper ‘defect cutting’ in the field is an excellent way to improve the appearance of a finished deck or siding project.

Deflection: A measurement of how far a structural member will bend along its length when placed under pressure. High density hardwoods are extremely difficult to bend and therefore show minimum deflection, even under great pressure. Due to their low strength, synthetic plastics and composites bend significantly, exhibiting maximum deflection.

Density: The measure of how much a wood species weighs compared to a specific volume. This measurement is often expressed in grams per cubic centimeter (g/cm³). Due to their exceptional density, high density hardwoods are remarkably strong, hard, and durable.

Dimensional lumber: Refers to wood materials that are thicker than one inch.

Dipteryx odorata: Scientific name for [Cumaru](#), a high-density tropical hardwood indigenous to areas of South America. (See Cumaru)

Durability: Refers to how long a wood material will last when exposed to outdoor elements and weather conditions. It is also a measure of a wood species' resistance to decay, rot, and insects. The USDA Forest Product laboratory rates materials they test from the highest rating of highly durable, meaning the material should last at least 25 years in an exterior exposure, to the lowest rating of non-durable, which means the wood is not expected to last for more than 5 years of exposure. Most high-density hardwood species are rated as durable to highly durable.

Eased Edge: also known as radiused edge, refers to the slightly rounded over profile at the edge of deck boards. They help minimize trip hazards and keep the edge of the board from splintering.

Equilibrium Moisture Content: Equilibrium Moisture Content (EMC) is the moisture level achieved when a wood species is considered fully acclimated to its new environment. Wood is a naturally hygroscopic (water absorbing) material and will change the amount of moisture it will absorb based on several factors and conditions; changes in the relative humidity, where the wood is located on a structure, the amount of ventilation, exposure to UV rays and more.

Eurotec: the brand name of a rooftop deck framing system that uses adjustable deck pedestals and aluminum joists to create a rot-resistant and fire resistant, stable deck frame. Works exceptionally well for rooftop decks, balcony decks, and patio top decks.

Expansion: This is the opposite of contraction. Wood will naturally expand with an increase in moisture. This can be noticed mostly along the width of the board. Synthetic decking boards are known to expand dramatically along their length and width, with an increase in temperature. Increased temperatures can also cause synthetic decking to buckle at butt joints and become extremely hot and exhibit some distortion.

Fascia: On a deck, this refers to wider boards that are used to cover up the face of the outside joists and outer rim joist.

Fiber bending strength: Measurement of how strong a wood species is and how many pounds per square inch of stress is required to break it. High density hardwood species such as Ipe, Cumaru, Machiche and Garapa have amazingly high fiber bending strength. That is why hardwood decking can span so far and still be incredibly strong. Synthetic decking has no wood fiber strength and therefore can span only very short distances and with marginal strength.

Figuring: Describes the amount of lively graining and patterns found in wood. Most domestic hardwood species that have figuring, such as curly maple, burlled walnut, and other figuring cost significantly more than standard stock of the same species. High density tropical hardwoods typically have a significant of lively graining at no extra charge.

Fire Retardant Treated: Refers to a method of treating woods under pressure to ensure that the fire treatment penetrates to the core of the wood boards.

Flat sawn: (See Plain sawn)

Footers or Footings: refer to cement columns below ground to support posts, thus supporting the weight of the entire deck. Footers are required in many jurisdictions, check with building code officials in your area,

Forest Stewardship Council®: FSC® is a worldwide organization that is dedicated to the preservation of sound ecological and environmental practices. FSC was an early pioneer and proponent of sustainable yield forestry practices.

Furring strips: Also known as "strapping" or "batten strips", refers to (usually) wood slats that are commonly used to space siding off the building envelope to create a rainscreen gap. This is a traditional method to create a simple rainscreen.

Garapa: High density hardwood native to much of South America. [Garapa](#) has golden yellow to light honey brown tones and finer, moiré-like graining. Due to its beauty and stability, Garapa hardwood is often selected for decking, siding, and outdoor furniture.

Good side: Denotes the face of an appearance board that the wood is graded to.

Graded side: appearance lumber is graded to the best side of the material (good side).

Grading rules: Vary from species to species and country to country. There are no consistent grading rules throughout Central and South America. Mataverde decking, siding and lumber has developed their own strict criteria that are very similar to hardwood grading rules used in the US. This ensures that lower quality material is “graded out” of Mataverde hardwoods. Mataverde has established guidelines that ensure acceptable tolerances of width, thickness, length, the number and nature of mill marks, worm holes and other imperfections.

Grain: Describes the appearance of the interlocking wood fibers that give various wood species different looks and strength characteristics. Wood species are often described as fine-grained, coarse grained or other descriptions.

Hardwood: Describes non-coniferous, deciduous (leaf bearing) trees. Generally, hardwoods are harder, denser, stronger, and more durable than softwood species. Ipe, Cumaru, Machiche and Garapa hardwoods are extremely dense, durable, and strong.

Heartwood: The area of log that is away from the bark and softer sapwood. Heartwood is typically significantly more stable and durable than sapwood.

Hidden deck fastener: fasteners that are typically inserted into slotted or pre-grooved deck boards. The screw and fastener are hard to see from above, hence the term “hidden fastener”. This fastening method works best with thicker and narrower deck boards with well ventilated deck structures and a minimum of 30” ground clearance.

High density hardwood: Term used to describe various species that exhibit extraordinarily high specific gravities. Hardwood species with a density higher than oak are often referred to as high density hardwoods.

High Pressure Laminate: Also known as HPL, is a material used for cladding and siding on residential and commercial buildings. This durable cladding is made by applying many layers of fiber paper with thermoset resins under heat and pressure to bond to a laminate surface. (See [Pura NFC by Trespa](#))

Hook: (see Crook)

HPL: See High Pressure laminate.

Hymenaea courbaril: Botanical name for Jatoba (Brazilian Cherry)

IBAMA: Government agency in Brazil that is responsible for the selection of forest parcels to conduct sustainable yield forestry practices. Over the past decade this agency and others have virtually eliminated the illegal cutting of trees in Brazil.

Ipe: Known by the scientific term *Tabebuia* spp., Lapacho group, [Ipe](#) is one of the hardest, strongest and most versatile hardwoods on earth. Sometimes referred to as Brazilian Walnut, Ipe is prized for its high density, incredible fiber strength, superior hardness, scratch resistance, decay resistance, natural slip resistance, fire resistance and imperviousness to most insects. Ipe is commonly selected for boardwalks, bridges, piers, decks, docks, walkways, rainscreen siding and more.

Janka scale: A measurement of hardness of a wood species that measures the amount of pressure required to embed a .4444" inch diameter steel ball, half of its width into a piece of wood. This so-called "high heel test" was established so an accurate gauge could be used to measure flooring and other materials for suitable usages. Oak flooring has a Janka hardness of 980 and is considered an appropriate species for wood flooring. High density hardwood species like Ipe, Cumaru, Machiche, Garapa, Jatoba, Massaranduba, and others are up to three times harder than oak. That's why many of these species are selected for high traffic areas such as boardwalks, walkways, bridges and more.

Jatoba: (*Hymenaea courbaril*) [Jatoba](#) (Brazilian Cherry) is a reddish-brown hardwood species, classified as very durable, that can withstand lots of punishment and extreme weather conditions. High density, naturally resistant to decay and insects throughout the board. Excellent option for decking, siding and rainscreen cladding.

Kerfs: Slots that can be routed into a board for any number of purposes, typically to receive some type of fastener. Cutting kerfs into the edge of decking boards is the most common way to install hidden fasteners.

Kiln dried: Method of drying wood to a uniform moisture content by putting the "green" wood material into a specially configured drying area at a properly scheduled drying time.

Lateral Bracing: Describes a structural member that is fastened to another structure member to create a stronger structure than either member would provide independently. For example, when decking is screwed to deck joists, it provides lateral bracing, which makes the entire deck structure stronger.

Ledger board: is a joist that attaches directly to the house. Because the deck joists all attach to this component, it is imperative that this framing member be attached properly to the structure to prevent deck failure.

Life Cycle Cost: Defined as the total cost of building, operating, maintaining, and disposing of an asset or structure over its lifetime. Owners and architects are concerned with the overall lifetime of their design and will also analyze the overall cost per year.

Lonchocarpus castilloi: Scientific name for Machiche high density hardwood tree. (See [Machiche](#))

Low clearance: describes any deck that is less than 30" above grade (ground level). Special considerations must be employed to prevent moisture issues, including maximum ventilation and thicker, narrower decking boards.

Low maintenance option: when referring to high density hardwood and decking, materials can be pre-finished (usually with an oil finish) to help the wood season. Afterwards the decking and siding boards may be allowed to naturally weather to a silvery gray patina.

Machiche: Common name for the high-density hardwood species with the scientific name Lonchocarpus castilloi. This species has beautiful chocolaty brown colors and moderate graining, sometimes exhibiting tropical striping and exotic figuring. [Machiche](#) is a beautiful, sustainably harvested and is used for decking, outdoor furniture, rainscreen siding and more.

Mataverde®: The registered trade name for many high quality, high-density hardwood decking, lumber, and siding species. Mataverde means "green forest" in Portuguese. All Mataverde hardwood species are harvested in an eco-friendly manner including FSC and IBAMA/SEMA sustainable yield forestry guidelines. Mataverde has developed its own grading standards to ensure consistently higher quality materials. Mataverde Ipe, Cumaru, Garapa, Jatoba and Machiche Decking species are covered by a [25 year limited warranty](#) against decay and insects.

Mill marks: Any imperfections or blemishes left on the surface of wood from the planing process. (See 'chatter marks')

Moisture content: A measure of how much moisture is in a particular piece of wood and is expressed as a percentage of its overall content.

Moisture Meter: Tool used to measure the amount of moisture contained in wood and other materials. The measurements are expressed in terms of percent of moisture content, e.g. 16% moisture content.

Nominal Size: refers to the industry standard rough size of a board. The actual dimension of the board is always smaller than the nominal size. For example, a nominal 2x4 measures 1-1/2" x 3-1/2" actual dimension.

OC: (or O.C.) is construction shorthand for 'on center'. (See On Center)

On Center: Denotes the distance between two structural members, measured from the center of one piece to the center of the next piece. The term is often used to describe the relative positioning of joists, rafters, and other framing members. For example, deck joists are often spaced 12", 16' or 24" 'on center'.

Plain sawn: (or flat sawn) Describes the method of cutting a log into straight slices (like a loaf of bread except lengthwise). The resulting boards have a lot of flat and horizontal graining.

Plastic decking: Refers to any number of synthetic plastic or PVC decking materials that are available in several colors. This material has limited structural strength (requires joists to be from 12" OC or 16" OC) and can become overheated in direct sunlight. Plastic decking material exhibits significant expansion and contraction with temperature.

Post: in deck framing, posts are vertical members that typically support a beam. In many locales, posts must be installed with footers to keep them from sinking into the ground.

Pre-grooved: Also known as 'slotted' material, pre-grooved refers to kerfs which are milled into the sides of decking boards to accommodate a hidden fastener. Full one inch thick material is suggested for this type of installation. While decking can be grooved in the field with a biscuit cutter, pre-grooved decking is typically used to save labor costs and provide consistent, uniform sizing for fastening strength.

Pura NFC: A premium HPL cladding manufactured by Trespa. The planks are available in many colors that emulate the appearance of real wood, without the usual maintenance concerns. Ideal for use on homes, multi-family, apartments, retail locations, and light commercial project designs.

Quartersawn: Refers to cutting a log into four sections (like a pie slice). The logs are then re-sawn perpendicular to the tree's growth rings, creating vertical grain patterns on the boards or lumber. This often results in more beautiful figuring to the grain pattern than found in flat sawn lumber. This usually increases the stability of the lumber and reduces expansion and contraction.

Radial movement: A measure of the amount of expansion and contraction along the width of a board. With wood species, the amount of radial expansion and contraction depends on the moisture content of the wood. After wood acclimates and reaches its equilibrium moisture content, there is minimal expansion and contraction of material. Synthetic decking materials experience significant expansion and contraction with temperature. Synthetic decking does not 'acclimate' and will experience expansion and contraction throughout its usable lifetime.

Radiused edge: (see eased edge)

Rainforest Alliance®: An international organization that endeavors to promote sustainable practices, especially in forests, similar to the Forest Stewardship Council®. Machiche and Santa Maria wood are harvested in the Mayan Biosphere Preserve forest in Guatemala under both Rainforest Alliance and FSC guidelines.

Rainscreen: A method of cladding the building envelope by placing the siding way from the structure. By distancing the siding from the structure, the siding creates a shield or 'rain screen', keeping the external elements away from the building envelope. The space that is created behind the siding is called the wall cavity.

Rainscreen Siding: Refers to the exterior cladding material that is spaced away from the building envelope. This cladding protects the structure from rain, snow, sleet, and other elements.

Rift sawn: Refers to the method of cutting a log, similar to quarter-sawn material. The result is wood material that is a lot of vertical graining and higher stability than flat sawn or plain sawn material.

Rim Joist: refers to the outside joist on a deck structure.

Riser: refers to the vertical member of a deck stair above the stair tread

Santa Maria: A medium-high density hardwood species found throughout much of Central America. Santa Maria has light tan to pinkish color and looks very similar to genuine Mahogany with fine darker grained exotic striping.

Sapwood: The wood from the softer area of the tree found closest to the bark. Sapwood is usually not as strong or durable as 'heartwood' and is often lighter in appearance.

Scarf Joint: 45° angle commonly cut into the butt end of flooring, decking and siding boards to provide for any expansion and contraction of the ends of wood.

Screws: Threaded metal fasteners and are the strongest form of mechanical fastening typically used in construction. The holding strength of a screw into a stable substrate is remarkably stronger than a nail and most chemical bonding agents.

Shake: refers to a defect in wood where there is a crack between the growth rings of the tree.

Slotted decking: (see pre-grooved decking)

Softwood: Any species of coniferous or evergreen trees. Most softwood species yield wood that has a very low density and hardness. Most softwood species have a very low durability rating.

Species: Refers to the scientific classification of various trees.

Stainless steel screws: the best fasteners available to attach deck boards to deck joists. Stainless steel is softer than, but more resistant to rust than coated or galvanized screws.

Sticker marks: These can be left on the surface of decking boards when dirt or water contacts a unit of decking material during shipment. These marks are easily removed with washing or sanding at the completion of a project.

Sustainability: The architecturally accepted method of incorporating materials and design elements. The key principles of sustainability include safety, health, welfare, life cycle, energy reduction, harvesting methods, social impact and more.

Sustainable yield forestry: An environmentally friendly and responsible method used to ensure that there are as many mature trees 20 years later as there were at the beginning of a harvesting cycle.

Stability: The measurement of the amount of movement, including expansion and contraction, of an exterior building material. Highly stable material shows minimal movement.

Tabebuia: Scientific name for Ipe high density tropical hardwood. (See Ipe)

Thermal bridging: Describes the transmission of heat or cold from the outside of a structure into or through the building envelope. In a rain screen system, it is a preferred design and construction practice to minimize the amount of area that materials come into direct contact with the building envelope to reduce thermal transmission.

Thermally modified wood: Thermal modification is a process using heat and steam (sometimes under pressure) to improve the stability of the wood. The temperatures and steam essentially “cook” the sugars out of the wood making them highly resistant to rot, decay and insects.

Timbers: Describes heavier wood components that can be used for posts, beams, and other heavy structural members. Typically, “3x” nominal thickness and greater.

Tongue and groove: Also referred to as T&G, it describes a milling profile where two pieces can be joined with a minimal joint reveal. The male ‘tongue’ inserts into the female ‘groove’ on alternate edges of the boards creating an interlocking joint.

Tread: refers to a stair component, often referred to as a step. With wood decking, stair treads are usually two pieces for better stability.

Tropical hardwoods: is a term applied to many wood species that are grown and harvested in the tropics. Because of their extremely fast growth rate, these woods are often high-density materials.

Twist: refers to unwanted movement of a board in at least two dimensions. Usually a crook (side bend) and lengthwise warpage.

Usable lifetime: Refers to the number of years a material will last and still be serviceable. This can refer to the amount of time that a material is stable enough to perform adequately. It can also be a subjective term in that many exterior materials can 'ugly out' before they actually wear out.

UV: Shorthand for Ultraviolet and refers to the harmful ultraviolet rays from direct sunlight. Protecting wood exterior building materials from harmful rays is very important, particularly during the initial acclimation period when the wood is exposed to the elements.

Ventilation: designing or building a deck or rainscreen to allow adequate air movement. The better the air flow, the faster the area dries out. This helps reduce potential for mold, decay, and wood movement.

Wall cavity: Refers to the space created behind the back of a siding material that is spaced away from the building envelope. This space allows for drainage and elimination of moisture.

Warp: refers to unwanted natural movement of a board along the length.

Wood rainscreen: refers to any wood siding or cladding that is installed in a rainscreen method.

Wood siding: Refers to any exterior cladding material that is made from wood. In a rainscreen system, stability and durability are the two most important functional criteria for selecting the proper species for a particular project. Due to their beauty and physical characteristics, high density, and medium high density hardwood species such as Santa Maria, Garapa, Machiche and Ipe are often selected for exterior wood cladding.