



WOOD GRAIN

WOOD GRAIN

UNDERSTANDING GRAIN PATTERNS AND STAIN VARIATIONS

NATURALLY DISTINCTIVE

When ordering stained casing or Aeris™ windows and patio doors from ProVia®, each piece of wood will be truly unique, due to the natural variation of grain pattern and the craftsmen- applied stain process. These one-of-a-kind characteristics are most often apparent once your products have been installed, adding to their authenticity.

There are several factors contributing to why each piece of wood may appear slightly different from the next. These factors include the type of wood used, moisture content, grain pattern, natural color of the wood, time exposed to sunlight, the sanding process, and finally, the stain application.

While the craftsmen at ProVia pay special attention to these differences, mother nature plays a major role in how the finished product will look. The ProVia Quality team is trained to help our experts stay consistent with their stain application technique, which includes how much stain to use, how long it sets before wiping it off, and how much time is needed between coats.





UNDERSTANDING HARDWOODS

These are broad-leaved trees, which exhibit a complete change of foliage on a year-round basis. Hardwoods have a more distinct and more appealing grain structure than softwoods. They typically have more open pores, making them the preferred species in the furniture and woodworking industry.

ProVia stains Oak, Cherry and Maple hardwoods for Aeris™ windows, patio doors, and casing.

GRAIN (pore) CHARACTERISTICS

Coarse Grain: Oak

Fine Grain: Maple and Cherry

WOOD SPECIES

GRAIN PATTERN AND COLOR VARIATION



OAK

Oak wood is typically light brown in color and has a very wavy grain pattern due to its coarse grain structure.



CHERRY

As the name suggests, Cherry wood is more red/pink in color and has a fairly even grain pattern, sometimes showing slight waves due to its fine grain structure. Cherry wood can range in color based on where it is harvested.



MAPLE

Maple wood is very light in color, making it ideal for painting, and has a very symmetrical, almost straight grain pattern. Hard maple can also be seen with curly or quilted grain patterns. Mineral streaking, black, gray or olive bands in the wood is very prevalent in lighter grains, such as maple.



TYPES OF WOOD CUTS

When working with real wood, the way a log is cut plays a significant role in the appearance of the finished product. Lumber can be cut using several methods—plain sawn, quarter sawn, rift sawn, and live sawn—each producing its own unique grain pattern. These cutting methods affect how the grain appears on both the face and edge of the wood, creating natural variation even within the same species, such as Oak.

Because these different grain patterns absorb stain differently, pieces of wood finished with the exact same stain color may appear slightly different from one another. This variation is a natural characteristic of genuine wood and contributes to the richness and authenticity of the finished product. In real-world applications, this subtle diversity in grain and tone is part of what makes natural wood both beautiful and unique.



PLAIN SAWN

Depending on where the board was in the log, Plain sawn boards normally feature cathedral grain patterns.



QUARTER SAWN

Quarter sawn boards produce a straight grain pattern with some added flecking caused by radial graining.



RIFT SAWN

Rift sawn boards showcase a straight grain pattern similar to Quarter Sawn boards, but without the flecking.



LIVE SAWN

Live sawn boards feature a similar grain pattern to Plain sawn boards, but keep the edges of the log intact for an added design element.

UNDERSTANDING THE PROCESS

When wood reaches a ProVia® facility, the Quality team ensures Cherry is protected with a black covering so light does not age or discolor it before it gets cut and stained. Then, before any wood is cut, the coloration and knots are confirmed to be within certain standards. If a piece falls outside of those standards, it is recycled and would not be used.

The wood is then cut to exact lengths based on the customer's order. Once it is cut, it goes through a 4-step staining process, which typically takes 48 hours to allow for adequate drying time.

1. An initial layer of stain is brushed on the wood by hand with even brush strokes.
2. The stain is quickly wiped off with a dry cloth to ensure an even finish.
3. A clear sealer is applied and the wood is placed on a rack to dry overnight.
4. The wood is lightly sanded the next day and a clear top coat is applied.

After the top coat is dry, the wood is checked to ensure the finished stain color falls between a light and dark range on a "Stain Standards Master". This standard of reference has a light and dark wood chip for each of ProVia's 25 stain colors for Oak, Cherry and Maple.

THINGS TO REMEMBER

Wood is a living, breathing organism. The climate the tree grew in and the moisture content it had throughout its life will determine the appearance of the grain. Therefore, each and every piece you see will be unique.

Even after wood is stained, it will continue to darken over time. This darkening may not be very noticeable; however, light and UV exposure does make a difference in the appearance.

Staining wood is truly an art. Even though ProVia's stain department does their best to ensure consistency, the nature of hand-applied stain will vary from product to product.

Wood grain patterns will affect how the stain looks. A very "knotty" piece will typically look darker when stained than a more straight grain pattern when stained on the same species with the same color.

Laminate woodgrain is NOT real wood, although its appearance may be deceiving. It cannot be refinished and is mass produced so all pieces look uniform, unlike real wood.



Cherry is protected with black plastic to limit UV exposure

UNSTAINED CHERRY



Not Exposed to UV



Exposed to UV

STAINED OAK



Light



Dark

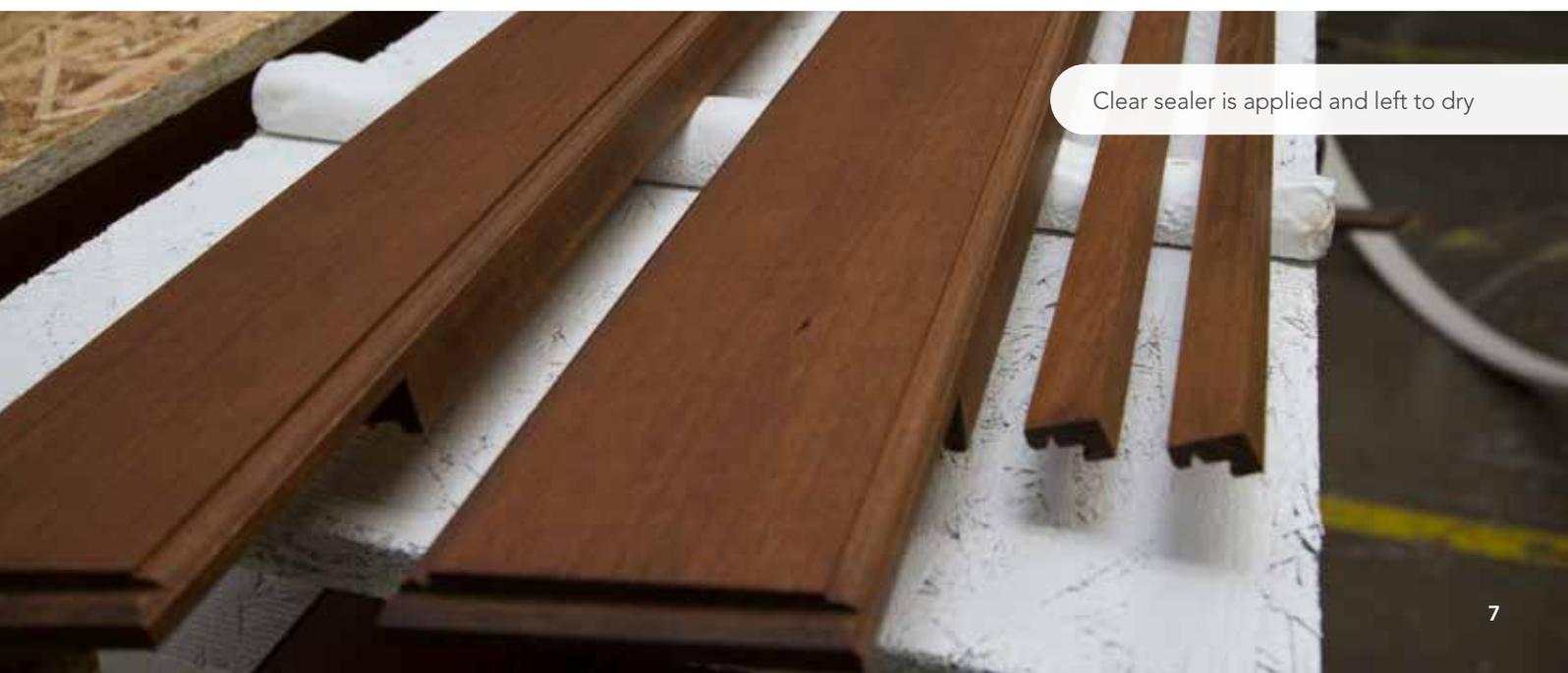
Always refer to our stain color selector for accurate color representation.



First coat of stain is brushed on



Stain is quickly wiped off



Clear sealer is applied and left to dry



“To serve, by caring for details in ways others won’t.” It’s not just our mission, but a way of letting our light shine every day at ProVia®. We continually strive to put these words into action by providing unmatched quality and service. The P-icon symbolizes each employee’s commitment to devoting the utmost care, pride and quality into each building product we manufacture...it’s The Professional Way.

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