



NATURAL, UNIQUE AND BEAUTIFUL

Why Natural Timber Veneer is Still the Premier Product for
Decorative Walls, Ceilings, Joinery and Furniture

matilda
-VENEER-

INTRODUCTION

With timber being universally loved around the globe, across cultures and generations, it is no surprise that the market for imitation wood products has grown over recent decades. As the distinct look and feel of wood remains as desirable as ever, there are a variety of products now available claiming to deliver a 'realistic' timber look – from composite artificial materials and papers, to vinyls and aluminium products, and more recently the emergence of digital printing – all that provide architects and designers an alternative to the 'real' thing.


Each imitation wood product makes claim to authentically recreate timber's signature hues and grain, with no compromises on design flexibility and performance, all at an affordable cost. However, these products are synthetic or man-made and thus lack the natural, unique and beautiful qualities of real timber. In all these aspects, natural timber veneer offers a superior, more versatile and cost-effective solution that retains wood's organic appeal.

Due to some effective marketing and some misconceptions about natural timber veneer that have often gone unresolved, there has been a steady increase in the prevalence of artificial or imitation wood products. Coupled with a lack of understanding or confidence, architects and designers may have overlooked timber veneer as a true alternative to solid timber. Specifying natural timber veneer is not difficult but it does require a functional level of understanding to take advantage of the myriad of design options available which will ultimately determine the product's aesthetic and performance.

In this whitepaper, we illustrate the reasons why natural timber veneer can provide architects and designers with natural, unique and beautiful solutions to their design challenges. We will dispel some common myths and misconceptions about natural timber veneer and discuss the benefits of timber veneer, highlighting why it should still be considered the premier product for decorative walls, ceilings, joinery and furniture.

Front Cover: Luther College, Croydon, Victoria.
Ireland Brown Constructions and Cox Architecture.
Photography by Rhiannon Slatter.



A close-up photograph of wood grain, showing a light-colored wood with a prominent, wavy pattern. The wood is cut into a thick, flat piece, and the grain runs diagonally across the frame. The lighting is soft, highlighting the natural texture and color variations of the wood.

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of real wood, the appeal of
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extension of why we build
with wood in the first place.

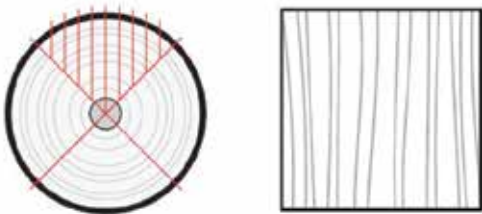
SETTING THE RECORD STRAIGHT

What is natural timber veneer?

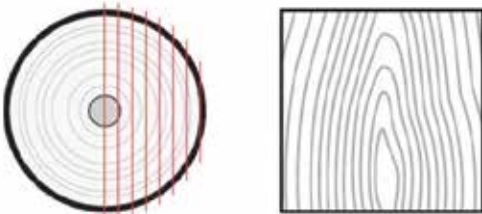
Natural timber veneers are manufactured by slicing or peeling logs, or sections of logs known as flitches. The resultant thinly-sliced sheets, referred to as leaves, are pressed onto a variety of different timber panel substrates such as medium-density fibreboard (MDF), particleboard and plywood. In Australia and New Zealand, veneer normally ranges between 0.5 and 0.6mm in thickness.

The look and quality of the veneer corresponds with the quality of the source timber and the manufacturing process. The way in which the flitch is prepared and the angle at which it is sliced ultimately determines the appearance of the grain. There are several slicing methods used, each creating unique grain patterns as follows:

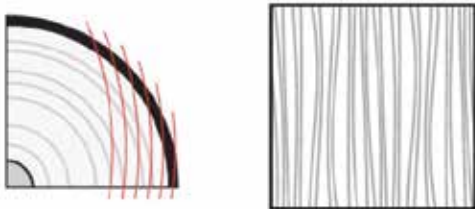
Quarter Cut:



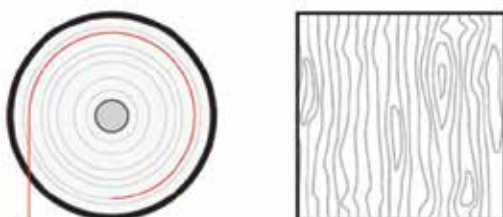
Crown Cut:



Rift Cut:



Rotary Cut:



Is it a natural material or not?

Veneer is a thin slice of real solid wood – this means the veneer itself is 100% natural. The veneer leaves are joined to make a sheet known as a layon which is then bonded to a strong core that provides shape, stability and durability, often outperforming its solid timber counterpart.

Veneer may be adhered to a variety of substrates, which are typically derived from natural wood. For example, a sideboard may be made of MDF, with a timber veneer applied to the outside. MDF is a stable wood panel created by combining hardwood and softwood fibres with wax and resin under extreme temperature and pressure. The result is a hard, flat, smooth surface with no underlying grain that is ideal for veneering in many applications.

Leading brands press natural veneer on a range of substrates in accordance with the requirements of the intended application. Veneer products can be manufactured to meet a range of performance requirements and specifications including weight, moisture resistance, stability, fire resistance, budget, and so on.

Is it difficult to specify?

Knowing how to specify timber veneer is critical to deliver the intended results, but it is not an overly complicated process. Each wood species has unique features and characteristics and an understanding of these is important to control the aesthetic. The manner in which the timber is sliced will accentuate different grain characteristics. The choice of substrate and the way the veneer leaves are joined, finished and lacquered will also impact the final appearance and performance of the product.

A veneer supplier can help you confirm project requirements and specification details with ease, enabling you to choose the right combination of species, grade, slicing and joining types, substrate and finish that will meet your needs and ensure that the finished product surpasses the expectations of even your fussiest client.



Above: Bunjil Place, Narre Warren, Victoria. Multiplex and fjmtstudio. Photography by Trevor Mein.



Above: Oxford Project, Northmead, New South Wales. Concepts by Gavin Hepper and Farmers Doors. Photography by Shutter Speed Studios.

THE BENEFITS OF CHOOSING NATURAL TIMBER VENEER

Natural

Wood is a natural and renewable material that provides wide-ranging architectural and environmental benefits. It is a responsible choice for building and construction provided the wood is certified and/or sourced from sustainably managed forests. Recognised certification schemes and bodies include Forest Stewardship Council® (FSC®), the Programme for the Endorsement of Forest Certification (PEFC), and Responsible Wood (RW) in Australia.

Wood's great advantage over other building materials is its low embodied emissions and high carbon storage potential. The production of wood products uses less energy than concrete and steel. It also does not involve petroleum, unlike the manufacture of plastic materials such as vinyl. Wood products also store carbon that the growing trees have removed from the air (about 50% of the dry weight of wood is carbon).¹

Due to its unique manufacturing process, veneer is an especially resource-efficient solution. The surface coverage of veneer is approximately 40 times more than 25mm timber. One cubic metre of log produces around 1,000 square metres of natural timber veneer.² This

efficiency means that less wood is wasted, and fewer trees need to be harvested to meet construction demand.

These qualities make natural timber veneer superior to other imitation wood products, most of which are artificial, non-renewable and/or unhealthy for humans and the environment. For example, vinyl is a synthetic material derived from petroleum. It is also nonbiodegradable and difficult to recycle. In addition, due to the chemicals used in the manufacture of vinyl and laminate, such products may emit levels of VOCs that may be harmful to human health.

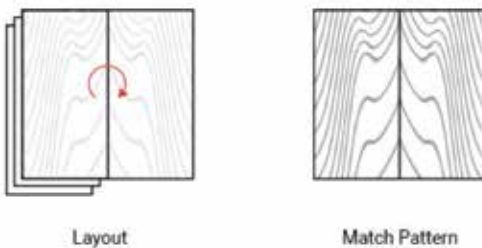
There is a growing focus on health and wellbeing in the design of our built environment. As a non-toxic and natural material with timeless appeal, wood is the ideal choice in creating healthier spaces that stand the test of time. There is also a growing body of research linking wood to physical and mental health benefits, such as lowered blood pressure and heart rates, reduced stress and positive social interactions.³ Studies show that the use of natural materials, such as wood, in learning environments can improve children's academic performance, reduce the impacts of attention deficit hyperactivity disorder (ADHD), and reduce levels of stress.⁴

Unique

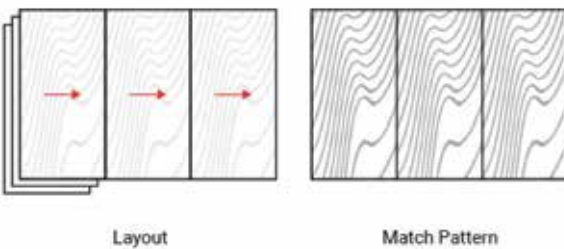
Timber veneer captures the unique features of different timbers, including natural variations in colours, grains and characteristics that cannot be replicated in synthetic or man-made products. Adding to its natural features, different production methods can enhance the grain of the wood and change the look of the final product. As no two logs are the same, no two veneer products will be identical, and thus every project will have its own distinct aesthetic.

In addition to different grains, tones and patterns, varied visual effects can be achieved by different methods of joining the veneer leaves to make the layon as follows:

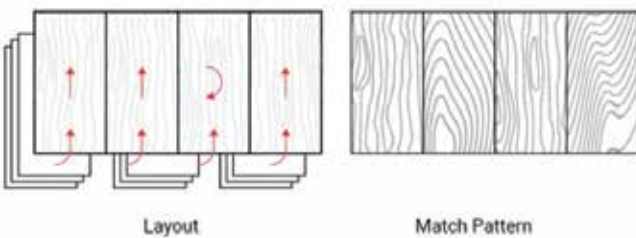
Book Matching:



Slip Matching:



Mismatch (also known as random match):



The uniqueness and versatility of timber veneer does not come at the cost of consistency. While no two logs (or even slices of veneer) are identical, designers should not expect a product that varies wildly from expectations. As the recovery from log to veneer is so good, a single log often produces enough veneer for a large commercial project featuring thousands of square metres of walls and/or ceilings. Where this is not possible, multiple but very similar logs can be combined to ensure a seamless aesthetic.

This balance of variation and consistency is unlike what is offered by imitation wood products. Such products are made to look like wood using special printing techniques, but lack variation in their colours and patterns, which

highlights their unnatural quality. Over time, manufacturers of imitation wood products update their range, adding and deleting colours and patterns 'or species', making it difficult to source matching panels after a project's completion. In addition, as designs are fixed, creating a bespoke outcome is much less likely.

Beautiful

The beauty of a natural wood finish is that it engages all the senses. It combines warm, rich colouring with a strong, tactile surface. Each individual grain provides depth and reflects the unique character of the different timber species. By retaining all the qualities of real wood, the appeal of natural veneer is an extension of why we build with wood in the first place.

Made from the highest quality timber, veneer adds organic beauty, vivid colours and patterns to projects and are gentle to the touch. Like natural wood, veneer will age over time and add a distinctive character to interior spaces. Customisation options are also available to create statement installations or to match the designer's specific vision.

Veneer manufacturers continue to innovate to broaden the design options available. Leading manufacturers and distributors offer 'smoked', 'aged' and 'rough cut' veneer, each aiming to enhance or transform the natural beauty of the wood.

- **Smoked (also known as 'fumed')**: Smoked veneer is produced using a leaf-by-leaf treatment system in which the veneer is exposed to a chemical process which reacts with the tannins in the veneer. This process results in strikingly beautiful veneer that is transformed in colour from light bronze to almost black. Unlike dyed veneer, smoked veneer does not fade or adversely change colour over time.
- **Aged**: Aged veneer is produced using a similar, but different, process to smoking to change the colour of the veneer to a grey or silver tone, with a similar appearance to timber that has been exposed to the elements for a long period of time and thus creating a rustic, yet modern aesthetic.
- **Rough cut**: Rough cut veneer is sliced with a serrated knife giving the veneer a textured look and feel that invites touch.

Some people mistakenly equate timber veneer with synthetic or man-made 'imitation' products such as timber-look laminate or vinyl, but in terms of authenticity they are incomparable. Imitation wood can look 'fake', 'cheap' and 'mass-produced', and thus does not stand up to close scrutiny when placed within modern interiors. Such products may present well as samples but, in situ, they cannot be compared with the authenticity of a natural product.

MATILDA VENEER

Matilda Veneer is Australia's leading manufacturer of timber veneer. Matilda Veneer is renowned for sourcing and manufacturing natural, unique and beautiful veneers for architectural specification from Australia and around the world. The company's veneers are produced from timber harvested with responsible forest management, proudly certified under the FSC®, PEFC and Responsible Wood chain-of-custody certification schemes, and are manufactured with the highest efficiency.

Featuring a vast collection of species, colours, grains and finishes, the company's huge selection of natural and enhanced timber veneer includes:

- **Sliced Veneer.** A traditional timber veneer that can be produced, graded, and joined in a variety of ways to highlight the natural grain of the timber, providing a superior, natural product that gives any design project a sophisticated and high-end finish.
- **Enhanced Veneer.** The Enhanced Veneer range utilises the most recent and on-trend veneering innovations, including aged, smoked and rough cut veneer.
- **Truewood® Veneer.** Truewood® veneer is a premium product engineered from low grade and often otherwise unusable veneers that would be otherwise dumped or destroyed. The advantage of Truewood® is that it offers a natural, straight grain that presents uniformity, beauty and confidence, providing a natural option for architects and designers seeking such qualities.
- **Rotary Veneer.** Rotary veneer are peeled on a lathe, resulting in a natural product with a completely different appearance to sliced veneer.

In addition to Australia's largest range of natural and enhanced timber veneers, Matilda Veneer is also a market leader in decorative and innovative plywood products. Their range includes Matilda Fireply® and Fireply X® (Group 2 certified fire-retardant plywoods), Matilda Lite and Ultralite (lightweight solutions) and appearance-grade Birch and Hoop Pine plywood.

Matilda Veneer is accredited by the Australian Institute of Architects (AIA) to deliver formal CPD presentations created to assist architects and designers to specify natural timber veneer with confidence. The presentation describes the art of producing timber veneer, the diverse range of options available and how to control the variables within a specification to ensure the end result always meet expectations.

Timber veneer captures the unique features of different species, including the natural variations in colours and grain, that cannot be replicated in synthetic or man-made products.

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- ⁴ Future Constructor & Architect. "Wood and Biophilic Design: A Natural Balance." FCA. <https://www.fca-magazine.com/features/technical-focus/2419-wood-and-biophilic-design-a-natural-balance> (accessed 24 January 2022).

All information provided correct as of March 2023



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