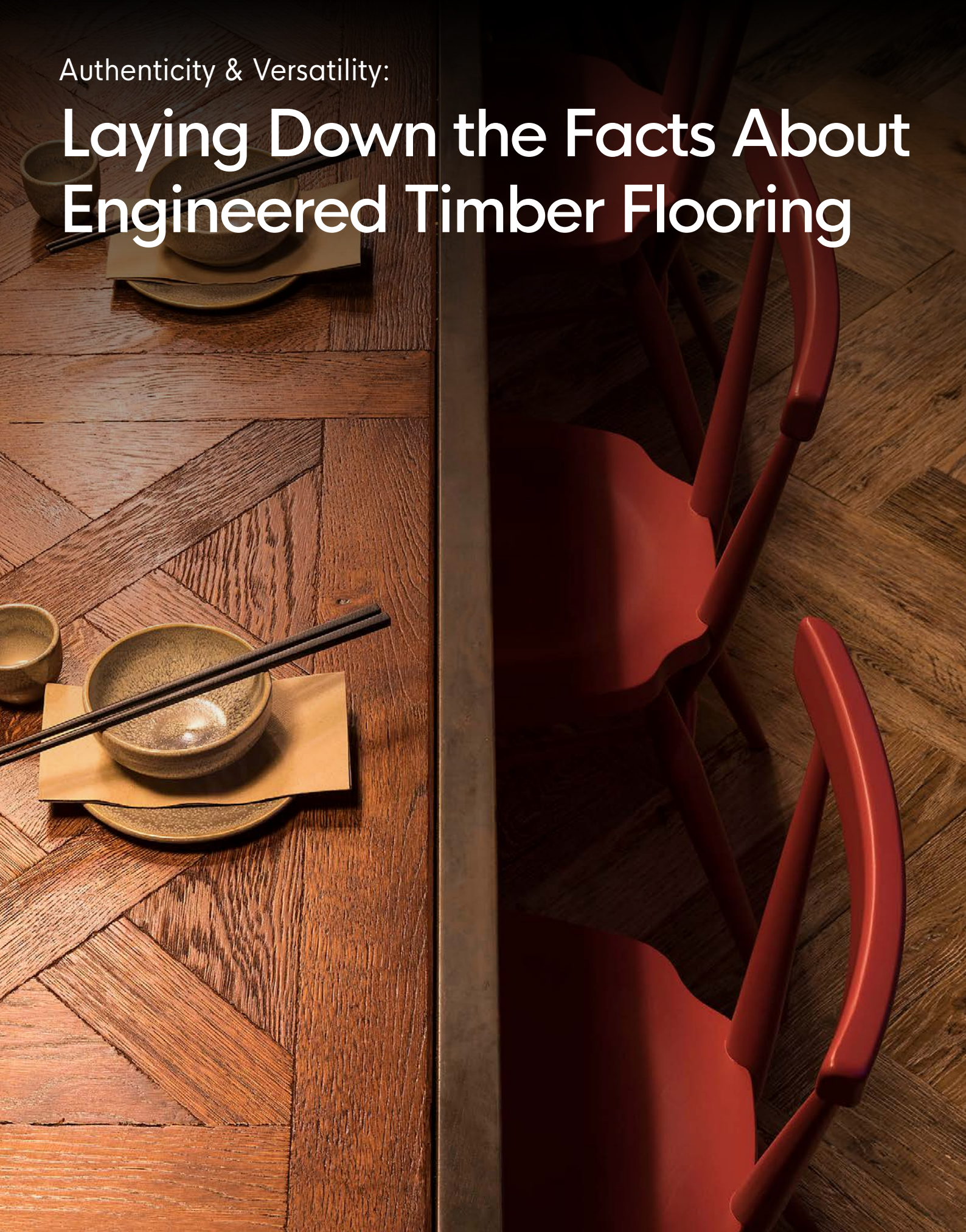


Authenticity & Versatility:

Laying Down the Facts About Engineered Timber Flooring



INTRODUCTION

Timber has been used in construction for thousands of years.¹ It is one of the most enduring and prized construction materials for a number of reasons - primarily that it is naturally occurring and has a high strength-to-weight ratio, making it durable and easy to work with.² Engineered timber dates back roughly 120 years when the first plywood was created by bonding together cut pieces of wood to form a larger and integral composite.³ Engineered timber was manufactured to be lighter and comparatively stronger than its solid predecessor, making it an ideal building material particularly for applications like doors, cladding and floors.

Engineered timber products are now very popular amongst the broader Australian timber industry⁴ and continue to prove a popular choice for designers

and specifiers worldwide. Innovations in design and technology mean that engineered timber flooring now provides the luxurious aesthetic of a solid hardwood floor while maintaining the superior mechanical properties for which it was originally designed. There are, however, some misconceptions in the architecture and construction industries that can lead to designers or specifiers making poor choices, like opting for solid timber when engineered timber would be more suitable for that particular application.

This whitepaper will directly address some of the most common misconceptions around engineered timber flooring and, in the process, provide an accurate set of facts for designers and specifiers to rely on in their future projects.



ABOVE & OPPOSITE Product: HW3621 Medio, Venture Plank Range. Designer: F3 Studio. Photographer: Damien Kook. Builder: Rockcity Building Group.
COVER Product: RECM2025 Reclaimed Barn Oak. Designer: Juicy Design

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WHAT IS ENGINEERED TIMBER FLOORING?

By discussing what engineered timber flooring is, this section also serves to address one of the biggest misconceptions about it: that it is not real wood. Engineered timber flooring utilises engineered timber boards - as opposed to solid timber flooring, which uses solid timber boards. Engineered timber boards are made by joining numerous, thinner plys together to create a single plank⁵ with a top layer (lamella) that is genuine timber, and normally hardwood. This layer can be tailored to fit any design in a variety of varying colours, grains and stains. Engineered timber flooring is designed to be installed over concrete, as a floating floor in many cases, which makes maintenance and repair cheaper and easier than solid timber flooring.

MISCONCEPTION 1: ENGINEERED TIMBER FLOORS REQUIRE A THICK WEAR LAYER

The wear layer of an engineered timber floor is the top hardwood layer of the plank. Wear layer thickness affects the finishing of a floor and how many times a floor can be refinished if damaged - each time a floor is sanded, it removes more of the wear layer. There is a misconception that engineered wooden flooring requires a thick wear layer so that it can be sanded and finished after installation, however this is frequently not the case. Most engineered timber flooring is pre-finished⁶, using modern finishes that have varying levels of scratch and stain resistance. It is frequently pre-finished in controlled environments, resulting in a superior coating compared with traditional timber flooring, which is sanded and finished after installation and may be exposed to dust and other contaminants in the process. This means that despite having a thinner wear layer than solid floors, there is less requirement for sanding when opting for engineered timber.

Engineered timber flooring solutions give designers and specifiers a much broader choice in thickness of wear layers. This can be a significant benefit in that it can be easier to find a product that has a thickness suitable for the specific application. The required thickness is determined by site conditions such as whether the flooring requires underlay or no, or whether the flooring must meet the height of a different material in an adjoining room such as a tiled bathroom. This minimises trip hazards, increasing safety outcomes throughout the design.



MISCONCEPTION 2: ENGINEERED TIMBER FLOORS CAN BE DIFFICULT TO MAINTAIN

Engineered timber floors are very easy to clean and damaged boards can be easily replaced, resulting in an expected lifecycle in excess of 20 years with no special upkeep required. Pre-finished engineered timber boards use modern finishes that have varying levels of scratch and stain resistance and create a smooth, easy to clean surface that is free of contaminants. This means that it is possible to get a good clean through regular vacuuming and occasional mopping with a damp mop and neutral detergent.

Regular cleaning in this way also extends the lifecycle of the boards as it prevents particles of sand and grit from being walked into the surface over time, damaging the lacquer. Many more troublesome stains such as crayon, lipstick or oil can be cleaned off the boards using mild detergents without damaging the finish.

In the instance of damage to an engineered board that is finished with a natural oil it is often able to be spot-repaired, or even one single plank easily replaced - particularly with a floating floor. Many engineered flooring products can be installed using the floating method, making installation and repair simple. This is a great option for commercial spaces that have heavy foot traffic and may need to spot repair, or to change up/update their interior design on a semi-regular basis for example. By contrast, solid timber floors cannot be floated and are required to be nailed or glued down, making it a much harder process to replace only one plank of a solid timber floor.

MISCONCEPTION 3: ENGINEERED TIMBER FLOORS DO NOT LOOK LIKE REAL WOOD

Engineered timber floors are manufactured from real wood: if the wear layer is not genuine timber it is not engineered timber flooring. This is an important distinction to make and sets engineered timber floors apart from vinyl plank or laminate flooring. Where vinyl or laminate may have imitation wood patterns printed on them, engineered timber flooring is a product from the natural world, meaning no two planks are the same.

This uniqueness is a characteristic that cannot be replicated by imitation products and is why timber flooring remains a high-end design choice. A wide variety of species of wood in combination with the treatment and finishing processes applied create a broad range of aesthetic possibilities to work within any design, and research has shown that colour and character variation is one of the most desired traits in timber products⁷ - however, if a client is unfamiliar in working with timber, the variation can come as an unexpected surprise. A professional installer with experience in timber floors will ensure that the planks are laid in a manner that evenly showcases the beauty of the characteristics throughout a space, ensuring that not all knots are in one corner for example and any characteristics that are deemed not desirable can easily be placed under furniture or out of the main view of a room.



IMAGE Product: HW16002 Pallido Block. Designer: Laxstudios



**MISCONCEPTION 4:
ENGINEERED TIMBER CANNOT BE
USED IN KITCHENS**

There is a perception that engineered timber flooring is unsuitable for kitchen spaces or other areas in which moisture and damp could be an issue. Engineered timber can perform better than solid timber for these applications as the hardwood/ply composition results in a more stable structure than solid hardwood.⁸ While moisture can affect engineered timber flooring, it will still perform well in kitchen spaces providing some basic precautions are taken. A small gap of roughly 10mm should be allowed at the edges of the room in order to account for any expansion and contraction due to temperature and moisture changes.⁹ Measures should also be taken to prevent damage to the finish of the planks to preserve waterproofing. These include putting felt tips or protective caps on furniture legs and cleaning the floors regularly to prevent sand and grit from scratching the surface.

**MISCONCEPTION 5:
ENGINEERED TIMBER BOARDS ARE
ONLY FOR FLOORS**

Engineered timber can be used for applications such as floors, walls, ceilings, counters, tabletops, doors, bespoke joinery and more. Its layered construction makes it versatile and easy to work with - removing sections of the bottom layers to create joins for example - allowing the aesthetic of the genuine timber on top to remain intact. In addition, engineered timber is often lighter than solid timber, making it easier to install and creating numerous applications for use as interior linings or other focal points within the space. This makes it simple to carry the consistency of a design from the floor through to other aspects of a design such as table tops in a restaurant or reception counters and feature walls in office spaces.

HAVWOODS

For 45 years, Havwoods has been supplying architects, designers and specifiers around the world with the best in engineered timber flooring and cladding. An unwavering commitment to quality along with a dedication to sustainability have made them a leading supplier within the Australian market. Havwoods timber is sourced only from reputable suppliers and their engineered timber planks are specifically manufactured to get the most product possible per tree used.

Many of Havwoods engineered timber floors use a genuine European Oak top layer, finished in a dust-free environment to provide a superior coating that both looks great and prolongs the life of the floor. Havwoods staff are highly trained with knowledge not only about product, but about best-practice installation and maintenance across a wide variety of use cases. Many Havwoods products are available for immediate delivery or can be reserved up to three months in advance in order to precisely fit in with construction schedules. Designers and specifiers can contact Havwoods for a detailed discussion on how engineered timber flooring can work within their next project.

Engineered timber can perform better than solid timber for these applications as the hardwood/ply composition results in a more stable structure than solid hardwood.

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All information provided correct as of April 2020.