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Masonite hardboard – innovation is the mother of invention



Image courtesy of
Australian Hardboards

With a lengthy history, Masonite hardboard has developed into a material that can't be ignored as a sustainable source of strong, weatherproof panelling for extensive building applications.

Arguably the original environmentally responsible timber product, the invention of Masonite hardboard is often credited to William Mason in the 1920s, an inventor from Mississippi, who wanted to find a use for the timber waste that was piling up on sawmill floors. Mason worked on his ideas for recycling sawdust and woodchips using a nineteenth-century steam letterpress, with the intention of producing insulation board. One day in 1924 Mason left the steam on while he went to lunch, returning to find that the overdose of steam had produced a tough sheet of hardboard.

The following year Mason established the Mason Fibre Company and manufactured the hardboard for general use in the USA. Twenty-five years earlier in the UK, in 1898, Daniel Manson Sutherland had patented what was known as 'millboard'; even earlier still a form of hardboard had been manufactured in parts of Europe.

Wherever it originated, what we now know as Masonite hardboard was one of the first of the mass produced engineered wood products. Its applications have expanded over the years with improvements in strength and resistance to weathering.

The many faces of Masonite hardboard

The high strength of Masonite hardboard, compared to the other fibreboards, is due to the inter-fibre bonding that occurs during the heating process because of the presence of lignin (a natural resin) in the raw wood material. These days, synthetic resins are added to some hardboards to improve their properties and increase the ways they can be used.

In Australia, there are currently four types of hardboard, each developed with specific degrees of density to meet a range of design and construction needs.

Standard hardboard is the ideal general purpose building board for a host of interior applications, from furniture to wall panels, cabinetry and beyond. Available in a range of sizes and able to be shaped or bent without splitting, splintering or cracking, standard hardboard offers excellent machining and working properties. A reduced density version, called standard hardboard type RD, has been specifically developed for use as a wall lining and floor underlay.

Tempered hardboard is a tough, high-density hardboard with superior strength and resistance to impact and water absorption. Designed to withstand the effects of high humidity or occasional wetting, or for use in applications where increased strength is required, tempered hardboard can be used as stage floor covering, wet area wall linings, exterior doors, bench surfaces, boat building and signage, to name a few applications.

Exterior hardboard is treated during the manufacturing process to ensure high resistance to weathering and long-term performance as an exterior wall cladding, and similar applications. A recent innovation in this area is **Braceboard**, a high performance material designed for cavity bracing external wall frames in brick veneer construction, it is available in either 4.8mm or 6.4mm thick sheets. Braceboard is specially formulated to withstand atmospheric conditions, making it an ideal building material for high wind or cyclone prone areas, such as northern Australia.

Manufactured in Australia from sawmill waste and forest thinnings, Masonite hardboard is a sustainable, economical and durable building material, with the availability of different types adding versatility to the list. Manufacturers and suppliers can provide more information on the many applications of Masonite hardboard for the design, architecture and building industry.

Playing a central part in the history of recycling timber waste into new and improved timber products, Masonite Hardboard continues to hold its own as an economical, versatile and sustainable building material.

For more information on Masonite hardboard and other timber products visit woodsolutions.com.au