

Masonite™

STANDARD

Standard Hardboard

Masonite Standard is a wood fibre building board, manufactured in Australia to comply with the requirements for Standard Hardboard, type GP in Australian Standard AS 2458-1982, Hardboard.

Main Features

The fine, densely bonded, wood fibre structure of Masonite Standard ensures excellent machining and working properties using normal woodworking equipment or hand tools. In addition, the smooth face surface provides an ideal base for paint finishing with most industrial and domestic coatings. The back surface of Masonite Standard is characterised by a fine, wire screen texture.

Masonite Standard is available in a range of accurately dimensioned sheet sizes and in thicknesses of 3.2mm, 4.8mm and 6.4mm. Cut to size sheets can also be supplied for industrial, packaging, commercial or building purposes.

Key Applications

Masonite Standard is intended for dry area, interior use. Typical applications include:

Building: as interior wall and ceiling linings. Door and partition surfacings.

Furniture and Joiners: in flush or fancy doors, backs for furniture, cupboards, vanity tables and mirrors. Chair and pouffe bases, shelves, drawer bottoms and divan bases.

Display: straight or shaped display bases for screen printing, lettering, shop fitting and notice boards.

Automotive: door trims, sun visors, spare wheel covers, boot floors and linings.

Packaging: butter and cheese boxes, fruit cases, crates, pallet surfacings and protection pieces for machined engineering products.

Product Details

Thickness mm +/- 0.5mm	Widths mm +/-3mm	Lengths mm +/- 3mm	No. of sheets per pack
3.2	1220	1830, 2440, 2745, 3050, 3660	50
	1372	1830, 2745	50

Squareness: Maximum variation between diagonals is 0.2%.
Note: Other sizes and thicknesses can be manufactured to order. Please contact your Australian Hardboard Sales Office for further information.

Packaging and Supply

Sheets are packed face upwards and strapped to a disposable timber pallet. The top sheet is turned face down. The delivery time is dependant on location. Check with your Australian Hardboards Sales Office, your distributor or reseller at the time of placing the order for information.

Properties

The following table is based on data from production and research centres. It is intended as a guide to the properties of Masonite Standard. If more accurate information is required on these or any other properties please contact your Australian Hardboards Sales Office.

Property	Unit	Typical Value
Density	kg/m ³	1050
Mass/Unit area		
3.2mm thickness	kg/m ²	3.3
4.8mm thickness		4.9
6.4mm thickness		6.5
Modulus of Rupture	MPa	40
Modulus of Elasticity	MPa	4000
Impact Strength	J/m ²	4500
Internal Bond Strength	kPa	1200
Thermal Conductivity	W/(m.K)	0.18
Hygro-expansivity (change in face dimensions over 50% to 90% relative humidity)	%	0.25

product data sheet

Early Fire Hazard Properties

Samples of Masonite Standard were subjected to the Australian Standard 1530 Part III-1976, Test for Early Fire Hazard Properties of Materials, at the Department of Construction, Experimental Building Station, North Ryde, NSW.

Lining Material	Ignitability Index	Spread of Flame Index	Heat Evolved Index	Smoked Developed Index
4.8 Masonite Standard	14	7	7	3

Preparation

For best results Masonite Standard should be moisture conditioned and especially where:-

1. Sheets larger than 1830mm x 1220mm are being used.
2. Sheets are to be rigidly fixed.
3. Close fabricating tolerances are required.

Apply water to the back of the sheets with a sprinkler or fine hose and brush into the surface with a stiff broom. (See table for approximate water quantities). Stack the sheets flat, back to back, for at least 24 hours before fixing.

Approximate litres of water per 10m² of board:

Thickness	Litres
3.2mm	2.3
4.8mm	2.7
6.4mm	3.2

Cutting & Machining

Masonite Standard is easy to work and machine with normal woodworking tools and equipment. Cut sheets with a fine tooth handsaw or power saw. Edges may be trimmed with a smoothing plane, power plane or sandpaper.

Where holes are required clean cutter bits or twist drills are satisfactory.

Woodworking shapers, spindle moulders and high speed routers may be used to shape or mould the edges of Masonite Standard. Tungsten carbide tipped cutters are preferred for long production runs.

Fixing Procedures & Installation

Interior Linings: 4.8mm and 6.4mm Masonite Standard are recommended for the interior lining of timber or metal framed buildings. 3.2mm Masonite Standard requires a solid backing such as timber lining boards, plasterboard or cement render. The backing should be firmly attached, dry, clean and reasonably flat to allow direct adhesive bonding.

Framing: Frames should comply with Local Building Regulations. Best results are obtained where timber frames are of the one species, seasoned, accurately gauged to width and framed up without deviation. Provide nogging or trimmers as required and ensure support is provided for all sheet edges. Space framing members in accordance with the following table.

Thickness mm	Maximum Spacing mm	
	Wall Studs / Battens	Ceiling Joists / Battens
4.8	457	305
6.4	600	457

Note: Space supports at 305mm, 406mm or 610mm centres to suit 1220mm sheet widths. Spacings of 457mm centres are suited to 1372mm sheet widths.

Joint Treatment: Sheet edges may be bevelled to form a "V" joint. Alternatively use timber, aluminium or PVC mouldings. Allow a 1.5mm gap between sheets and 6mm clearance where sheets meet adjoining walls, floors or ceilings.

Nailing: 25mm x 1.6mm cadmium plated hardboard nails are generally satisfactory for fixing Masonite Standard to timber frames although 30mm lengths are preferred when fixing to some softwood ceiling frames. Keep nails 10mm from sheet edges.

Thickness mm	Maximum Fastener Spacing			
	Walls		Ceilings	
	Edges mm	Body of Board	Edges mm	Body of Board mm
4.8	150	300	100	300
6.4	200	400	150	300

When nailing, work across the sheets or nail from the centre working outwards towards the edges. Never nail around the edges while the centre of the board remains free.

Nails may be set flush with the board surface or punched and stopped, depending on the quality of the required application.

Adhesive Fixing: Wallboard or construction adhesives, such as H.B. Fullers "Maxbond", are generally suitable for fixing Masonite Standard to timber or metal wall frames or existing walls. The adhesives are usually supplied in 300ml or 850ml cartridges for application by sealant gun.

Surfaces to be bonded must be clean and dry. Always use adhesives in accordance with the manufacturer's recommendations.

Procedure: Apply sufficient adhesive, to fix one sheet to framing members, in continuous beads about 5mm in diameter and at 450mm maximum centres for 4.8mm thickness board.

Locate sheet in its correct position as soon as the adhesive has been applied, and where possible, temporarily fix with two hardboard nails at the top edge. Press the sheet firmly against the frame or wall to transfer half of the adhesive to the back of the Masonite Standard.

Using the hardboard nails at the top edge as a hinge, pull bottom of sheet about 200mm away from the wall and block out. Allow the adhesive to become touch dry.

Carefully reposition the sheet against the frame then hammer over the adhesive areas using a felt faced block and hammer.

Do not allow any excess adhesive to harden. Remove with a soft cloth dampened with mineral turps, kerosene or water depending on the adhesive type. Fix subsequent sheets to the sequence described.

Note: When fixing 3.2mm Masonite Standard to solid backing, space adhesive beads at 300mm maximum centres.

Painting: Masonite Standard requires coating with a primer sealer before final painting. After priming stop up

holes with a proprietary filler and lightly sand the surface.

Paint finishes should be selected and applied in accordance with the paint manufacturer's instructions. Useful information on the application of paint coatings is contained in Australian Standard 2311-1983, "The Painting of Buildings".

Paint coatings may be applied to Masonite Standard by brush, roller or spray depending on the paint type.

Seal Masonite Standard linings with a wallboard sealer. Then apply two coats flat, low gloss or semi glass latex paint. Alternatively, use one coat solvent borne undercoat and one or two solvent borne finish coats after sealing.

Industrial Applications

Masonite Standard is extensively used in furniture, display, automotive, packaging and other industrial applications due to its ease of fabrication and suitability for fixing with adhesives or mechanical fasteners. It can be coated with most industrial paint and lacquer finishes or laminated with PVC film, decorative paper or foil, timber veneer and metal claddings such as aluminium foil or sheet.

Adhesives: Masonite Standard will accept most woodworking adhesives including PVA, casein, urea formaldehyde, neoprene rubber, phenol formaldehyde, epoxy resin or melamine fortified urea formaldehyde formulations. The adhesive selection will depend on the nature of the application, adhesive bond requirements and the laminating system, either thermo setting or cold bonding. Specific advice on the selection and use of adhesives should be obtained from the manufacturer.

Ensure substrates such as timber frames, cellular paper infills, blockboard, particleboard or polystyrene are accurately thickened.

To achieve a balanced assembly, equal thicknesses of Masonite™ Standard should be applied to both surfaces of the substrate at the one time. Flush panel doors with cellular infill or particleboard cores should be manufactured to comply with Australian Standard 2688-1984, Timber Doors.

Mechanical Fasteners: Masonite™ Standard can be nail, staple or screw fixed to timber and wood panel substrates. Preferred nail types include hardboard, wallboard and bullet head nails, 20mm to 30mm long x 1.6mm diameter. Ring grooved or cement coated nails may also be used.

Staples allow rapid fixing and can be hammer or pneumatically driven. Narrow crown types, 20mm to 25mm long are generally satisfactory. Pneumatically driven brads or pins are also used for fixing Masonite™ Standard in cabinet applications. Equipment manufacturers should be consulted for advice on machines and fasteners for particular applications.

Various types of screws are available for fixing removable panels. Blind rivets or self-drilling screws with countersunk, round or pan head shapes can be used to fix Masonite™ Standard to metal. When screw fixing to rigid metal frames provide clearance around the fixings by pre-drilling clearance holes or slots in the board.

Coated Products

Masonite™ Standard can be supplied pre-primed or pre-finished as Masonite™ Readycote, Masonite™ Whitecote and

Masonite™ Colorcote. Masonite™ Standard is also suitable for surfacing with decorative overlays. For further information please contact your Australian Hardboards Sales Office.

Storage

Store flat, under cover on a horizontal pallet or on supports spaced at 450mm centres. Do not leave in direct sunlight.

Health and Safety Warning:

Inhalation of dust generated from processing Masonite™ hardboard may cause irritation and sensitisation by inhalation (asthma) and by skin contact (dermatitis). Repeated inhalation of wood dust increases the risk of nasal cavity cancer and of lung fibrosis (scarring). Do not breathe dust. Wear a respirator if using power tools. Phone 1300 336 681 for a Material Safety Data Sheet.

For more information about Masonite™ Standard
or any other Masonite™ products,
please contact the Australian Hardboards Customer Service Centre
Phone 1300 366 681 • Fax 1800 666 081

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