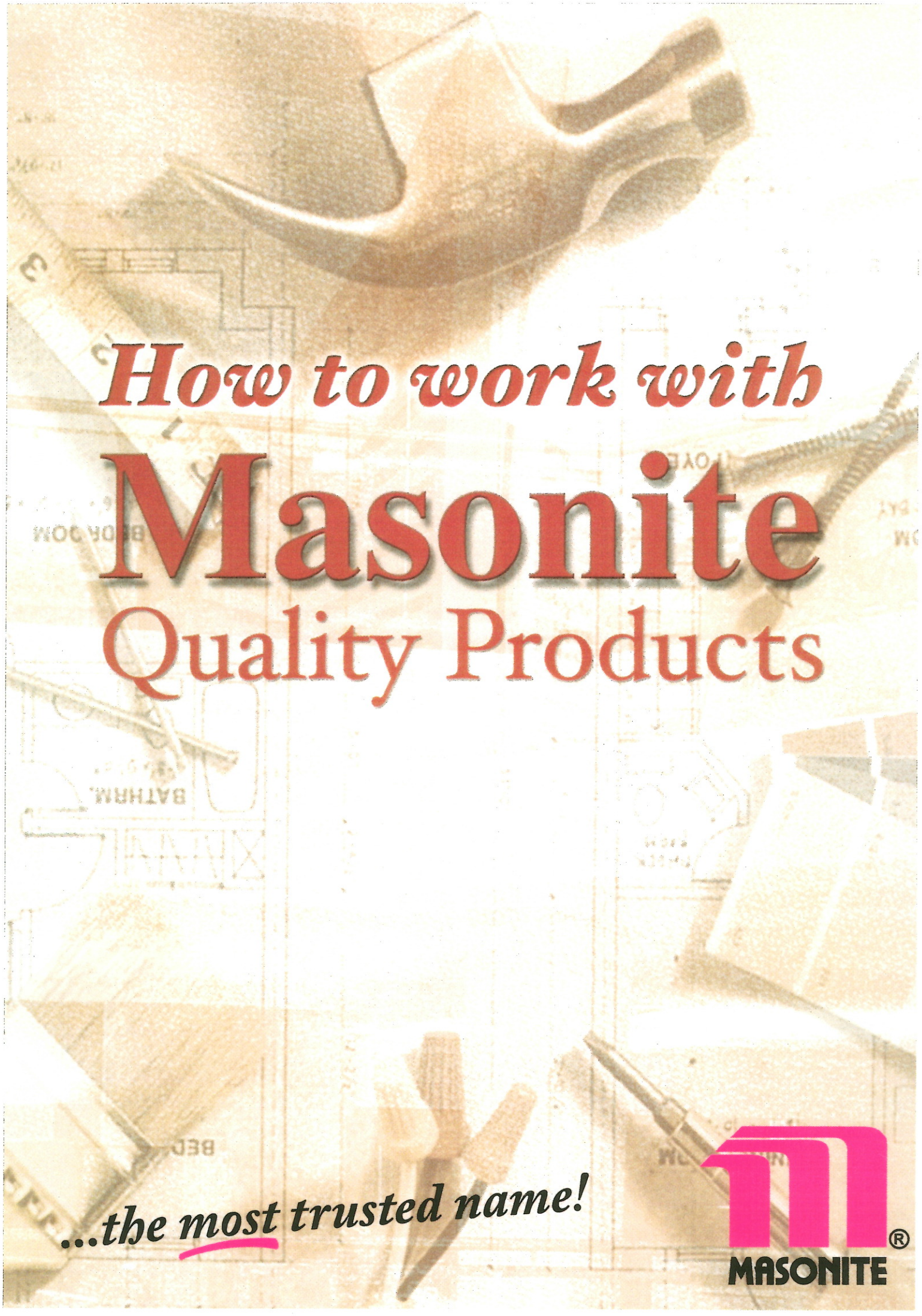
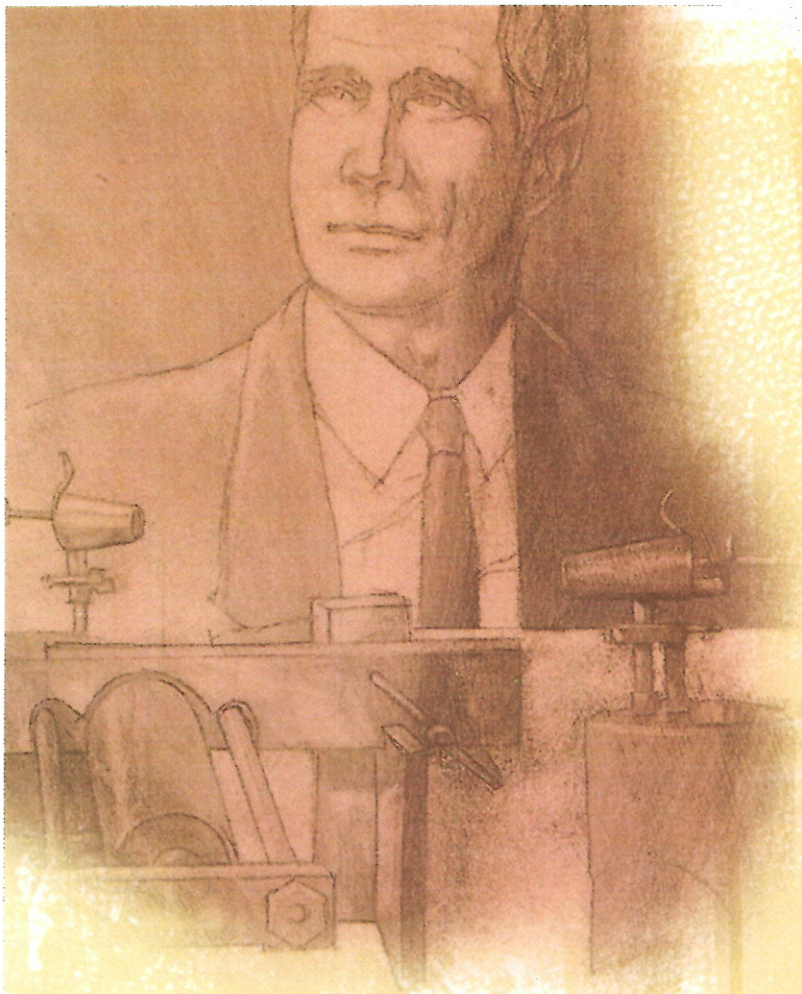

How to work with
Masonite
Quality Products
...the most trusted name!
MASONITE



William H Mason

The world's first piece of Hardboard!

Over 80 years ago, in an attempt to reduce the great quantities of left-over wood, normally burned as waste, to its strong component fibres, William H Mason developed a unique explosion process. His intention was to use a steam-heated screw press to squeeze the water out of a piece of wetlap and to dry out the resulting flat panel in an oven.

One day, he turned off the steam and went to lunch. Upon his return, he found the press still hot because the steam valve had sprung a leak. Meanwhile, his piece of wetlap had turned into a hard, dense, dry board which wouldn't split, splinter, crack, dent or snag.

Quite by accident, he had discovered the incredibly versatile and practical product which became known as Masonite® Brand hardboard.

Since then, the uses of hardboard have become virtually limitless, and from Mr Mason's little workshop has grown a vast, world-wide organisation of afforestation, production, marketing and sales, distribution and research. Many types, thicknesses, surface textures and sizes are now available for use industrially, commercially and domestically.

In Africa, the Masonite name has for over 55 years been synonomous with quality and integrity in the provision of complete support to the entire construction industry through specifiers, builders, distributors and stockists.

Estcourt Mill

Understanding
Your needs!

This brochure introduces you to the versatile and easy to handle aspects of hardboard products and illustrates how they can be used for maximum efficiency, durability and effect. Good workmanship takes time and care... Masonite is dedicated to assisting you in every step along the way.

Contact your nearest Masonite sales office for further information and details of the full range of Masonite quality products, namely; Softboard, Deep Moulded, Plain and Embossed Door Panels, Trugrain, Timbawall, Timbamatch, Flexijoint, Echostop and Mineral Fibre Ceiling Tiles.

MASONITE®

Cutting and sawing

When cutting boards it is important to pay attention to normal good practice: sharp cutters, adequate support close to saws and cutters, elimination of machine vibration, correct allowance for saw kerf, etc. The quality of cut is also affected by moisture, and excessively high board moisture contents should therefore be avoided.

Cutting Softboard by Hand

The most convenient method of cutting softboard is by means of a trimming knife used with a straight edge. To reduce tear-out of the reverse face, the cut should be made onto a flat, rigid backing material. Softboard may also be cut with a fine toothed saw (see recommendations below for cutting hardboard).

Cutting Hardboard by Hand

Where a very close tolerance fit is needed, boards should be cut to size after moisture content "conditioning".

Handsaws

Since hardboards are wood based materials, carpenter's handsaws are generally used. To prevent chipping, saws with ten or more teeth per 25mm are recommended, ie. a panel saw held at a low angle of cut to the board and with minimal tooth set (Fig 1).

Mechanical sawing and Routing

Certain types of cutters (portable circular saws, radial arm saws and jig saws) cut on the upstroke, and the wanted or decorated face of the board should therefore be placed facing downwards (see Fig 2). Bench circular saws, on the other hand, cut on the downstroke, thus necessitating feeding board in face uppermost (Fig 3).

Table 1 gives some recommendations for optimum cutting of hardboard. Circular saw blades should be set as low as possible (while still maintaining correct cutting angle) to prevent chipping and scoring as the board passes the rear end of the saw blade.

The height of the saw blade should be positioned so as to maintain the correct hook angle relative to the board surface.

Cutter speed (revolutions/min) is related to feed speed (metres/min). If the feed speed is too slow, cutters will have insufficient "chip load" and the tip of the cutter knife will wear rapidly. Too great a feed speed will result in rough, fibrous cut edges.

Fig 1

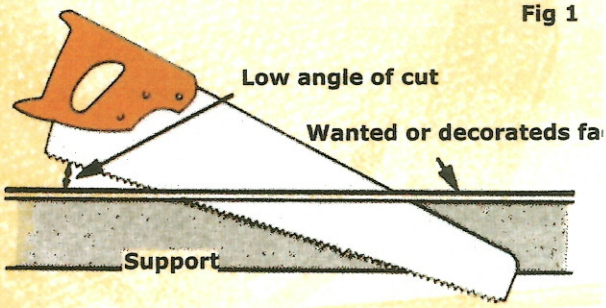


Fig 2

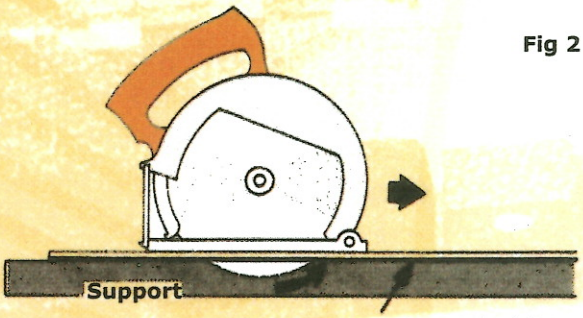


Fig 3

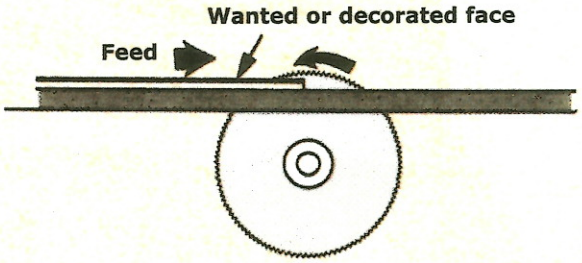


TABLE 1
Cutting hardboard: Recommendations for saws and routers (For explanation of terms see Fig 4.)

	SAWS	ROUTERS
Diameter (mm)	350	100-150
Revolutions/minute	3500-4000	6000
Cutter speed (m/sec)	70	30-50
Number of teeth	76	6-8
Feeding speed metres/minute	20-50	8-10
Chipload (mm)	0,2	0,2
Back clearance angle	10-14°	12°
Hook or rake angle	5-10°	15°
Tangential clearance angle	3°	
Radial clearance angle	1°	
Front bevel angle	0-5°	
Back bevel angle	10-15°	

Tungsten carbide tipped saw blades and cutters

Tungsten carbide tipped saws and cutters have a very much lower wear rate than most other types, and this offsets their high initial cost. Comparisons made on a range of hardboards indicate a wear rate some 80 times less with type C tungsten carbide tipped cutters, compared with 18 per cent tungsten high speed steel.

Cutting pre-decorated boards

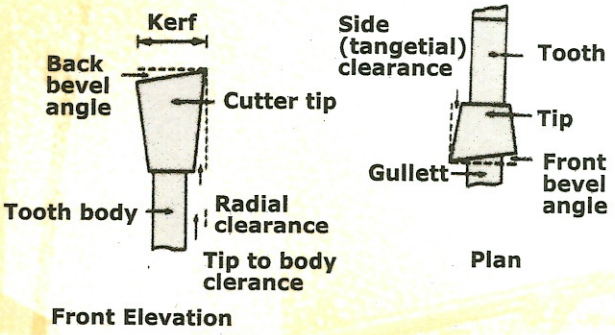
It is normal to cut down onto the wanted or decorated face of a board. Chipping of the decorated surface can be eliminated by:

- Using a saw with ten (preferably more) teeth per 25mm.
- Keeping a low angle of cut.
- Working to a knifed or scored line, the cut being made on the waste side of the line.
- Place masking tape on the decorated face over the intended line of cut. This makes marking easier (pencil lines can be readily drawn on the tape) as well as reducing chipping.

Drilling

For drilling hardboard, bits designed for drilling steel are more suitable than those intended for other wood-based materials. Speeds of 3000 - 4000 rpm produce the cleanest cuts with least lipping around the hole. A feed speed of about 10mm/sec is the optimum for bit wear. Conventional steel drills have bits with a point angle of 118°. Increasing this to 170° decreases surface lipping. (See Fig. 5)

Fig 4



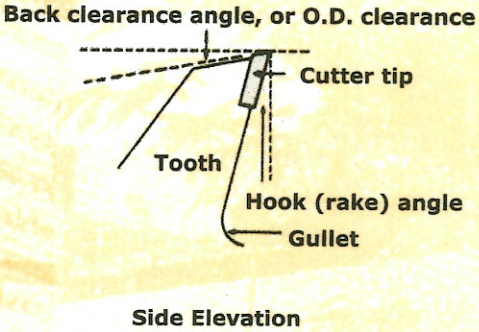
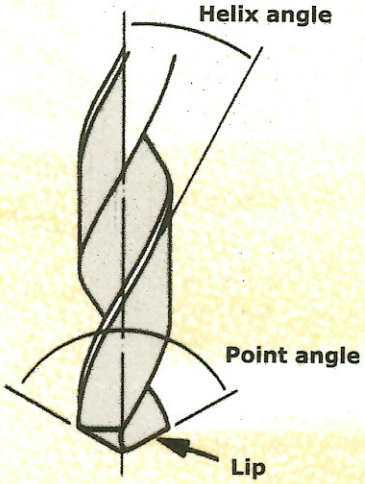


Fig 5



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Conditioning Before Fixing

Before boards are fixed ensure that they are at least as damp as they are ever likely to become in subsequent use. Like natural timber and other wood-based products, boards expand on taking up moisture from the surrounding air and shrink on losing it. Therefore, if a board is fixed when it is very "dry" and later takes up moisture, it is likely to expand - and this could cause bowing or buckling.

By the time they are on site ready for use, most boards have already "conditioned" themselves to some extent. However, to reduce the possiblity of their buckling after fixing, it is advisable to adjust their moisture content further by conditioning them before they are fixed - either in ambient air conditions or by adding water. Conditioning in ambient air conditions is adequate in cases where the board has been stored in periods of high humidity i.e. during wet summer rain-fall periods but is NOT sufficient in dry winter periods. It involves exposing the boards in the room where they are to be fixed for long enough to allow them to reach a moisture content which is in balance with their surroundings and adjust their dimensions accordingly. To encourage free air circulation over all board surfaces, the boards should be arranged loosely in one of the ways shown in Fig 6. They should then be allowed to stand like this for the minimum length of time, given in Table 2, for the type of board being used.

Conditioning by adding water, particularly in winter, effectively increases the board's moisture content and encourages expansion before fixing. It is suitable for standard and tempered hardboards, especially when these are used in exterior or damp locations.

Lay the boards smooth side down on a flat clean surface in an unheated, draught-free place, under cover and out of direct sunlight. With a brush or clean mop, rub clean water into the mesh screen back face of the board at the rate of a half litre for a board 2440 x 1220 x 3,2 mm. For board of other sizes or thicknesses, the amount of water should be increased in proportion. Moisten the boards uniformly by working from the centre outwards then place them wet side to wet side in a neat stack. The boards should then be allowed to stand for the appropriate minimum length of time given in Table 2.

For coated products, lay one panel face down on clean, dry paper on a flat surface. Cover screen side of panel with a single thickness of thoroughly wetted paper - then place another panel on top, screen side down. Sandwich all panels like this and cover stack. After 24 to 36 hours, wipe off excess moisture and fix immediately.

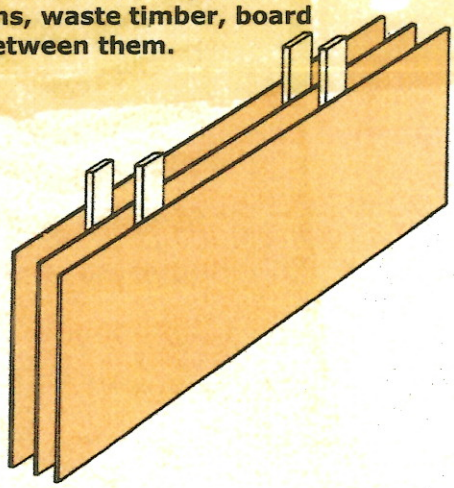
TABLE 2
Approximate "Conditioning" times before fixing

BOARD TYPE	CONDITIONING BY EXPOSURE TO AIR	CONDITIONING WITH WATER
Standard Hardboard (3,2mm - See note 1)	3 to 5 days	Ideally 48 to 72 hours minimum time 24 hours
Tempered Hardboard (3,2mm - See note 1)	5 to 7 days	Ideally 72 to 96 hours minimum time 48 hours
Softboard	1 to 2 days	Not recommended
Flexijoint	See note 2	Not recommended

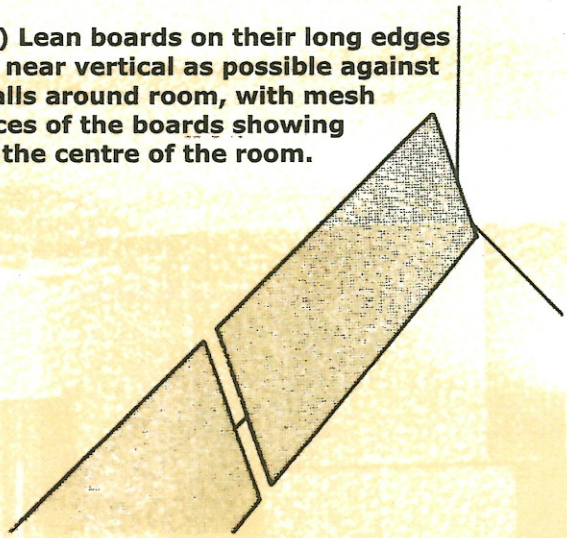
Notes:
1. Times shown are approximate for the 3,2mm thickness. These will need adjusting to allow proportionally longer conditioning times: for thicker boards, for boards that have been stored in an unusually dry place, or where the final location has a higher-than-normal humidity.
2. Flexijoint is mostly used in exterior situations and simply storing them in a covered open area is usually sufficient to condition them.

Fig 6

(a) Lean boards on their long edges against one wall with separators (eg. battens, waste timber, board offcuts) between them.



(b) Lean boards on their long edges as near vertical as possible against walls around room, with mesh faces of the boards showing to the centre of the room.



Timber/Steel support details

Support centres

Before commencing to fix boards refer to the section "Conditioning Before Fixing". Boards, if not fixed to a continous backing material, require support around all edges and at equal, vertical intervals as detailed in Table 3. This table relates to boards intalled in a vertical position (ie: walls).

These recommendations deal with supports for wall and ceiling panels where only the self-weight of the board is involved. For applications where additional loading is likely, or high impact-resistance is required, support at closer centres may be needed.

TABLE 3
Maximum stud and batten centres (mm) for boards of given type and thickness (See note)

BOARD TYPE	BOARD THICKNESS (mm)				
	3,2 4,0	4,8 6,4	10	13	19
Hardboard	305	406			
Softboard			305	406	610

Note:
The maximum spacings shown may not be appropriate for regular spacing across the width of a particular sheet of board - in case of doubt supports should be at closer centres.

Wall Linings

Battens are usuallly chosen for one of three reasons: when fixing to an uneven or unsound wall, when an air cavity is required or when the existing stud centres are unsuitable. Rough-sawn timber is adequate for most purposes, and 38 x 25mm is the smallest practical size. Battens may be fixed with masonry nails, but with dense brickwork and stud partitions the wall will need to be drilled, plugged and the battens fixed with screws. Faces of the battens must lie in the same plane in order to give a level fixing surface - packing pieces, such as hardboard offcuts, should be inserted behind the battens, as required, to achieve this.

Intermediate battens may be required to accommodate fixings such as light fittings or shelf supports. Extra battens may be needed for such attachment points, and to support edges at openings such as doors and windows.

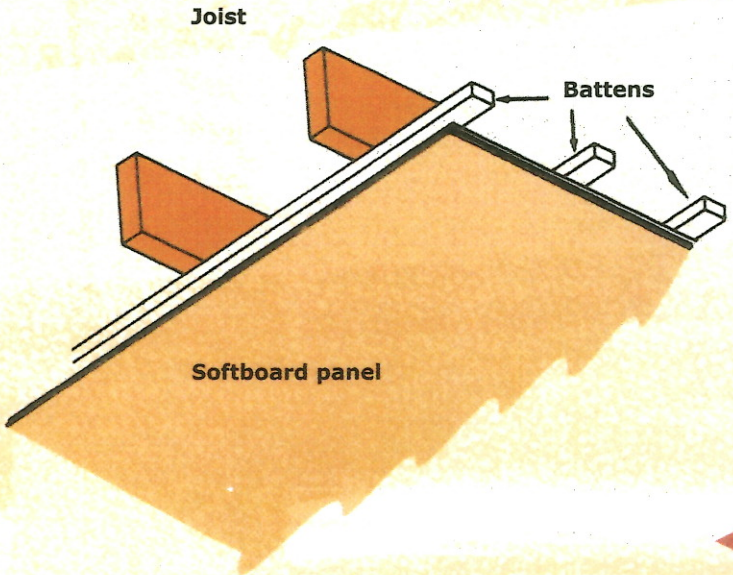
Boards which are to be decorated on site may be fixed with nails, screws or staples. With pre-decorated board, eg. Timbawall®, contact adhesives are preferred. Temporary panel pins may be used to secure the board while the adhesive cures.

Ceilings

Softboard may be fixed direct to timber joists, providing these are sufficiently level and are appropriately spaced. Board edges should be supported by cross noggings nailed between the joists. Alternatively, a batten framework may be fixed to the joists at centres suitable for the type and thickness of board. For intermediate battens use minimum 38 x 38 mm and 50 x 38mm for panel joints. Use 40mm galvanised clout nails and nail panels into intermediate battens starting from the centre of the board, working in both directions at 200mm centres. Always leave a gap of 4mm between panels and complete nailing along sides and ends at 100mm centres. (See Fig 7.)

Battens should be at the centres shown in Table 3.

Fig 7



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Fixing Procedures

There are two important factors concerned with fixing boards accurately and successfully:
1. Correct sequence in fixing - start from one edge of the sheet and work across. With the second sheet, start from the edge adjacent to the sheet already secured. Do not fix corners first then centres as this will "build-in" a tendency towards bulging from the outset. Even when adhesives are used for fixing, the board should be pressed home at one edge first and then "smoothed" on to the remaining supports.
2. Correct fixing centres - a large number of relatively low strength fixings are preferable to just a few strong fixings. Nails or staples should be at 100mm centres around the board periphery and 150 mm centres elsewhere. Leave a gap of 1mm between adjacent panels.

Fixing Accessories

Nails and Pins

Where nailing is the preferred fastening method, correct nail selection is important. Table 4 details the recommended types for interior work. All fasteners should be inset from board edges by 6-12mm, and those placed on adjoining edges should be paired (not staggered) across joints.

In general rust-resistant nails should be specified with a length of at least two and a half times the board thickness. In some cases this is more than the available depth of the timber framework; in such cases improved nails should be specified. (See Fig 8)

Staples

The advantages of using staples is a reduction in the tendency of splitting or deformation particularly near the edge of the board.

Boards can be fixed either by hand or machine-stapling techniques. The automatic machines are either spring, mallet, or pneumatically operated. When fixing through boards into wooden supports or frameworks, it is generally advisable to use divergent-point staples. Fig 9 illustrates how the design of the staple point causes the divergence on firing; this produces a dovetail or skew-nailing effect and provides a strong fixing.

Holding Sheet Materials Together

Staples can also be turned (or clinched) inwards or outwards against a steel plate after penetration through the materials. (See Fig 10)

TABLE 4
Recommended Nail Types and Sizes (Interior Use)
A - Lost Nailing (for work to be painted or left undecorated.)
Nails should be homed and neatly stopped.

BOARD TYPE	TYPE OF NAIL	LENGTH (mm)	SHANK DIAM (mm)
Hardboard	Round or square shank panel pin. Gimp pin.	25	1,6
Softboard	Lost-head nail with round or oval shank.	40	2,36

B - Covered Nailing (for work to be covered by paper, cover strips, PVC, foil, veneers, etc.)

BOARD TYPE	TYPE OF NAIL	LENGTH (mm)	SHANK DIAM (mm)
Hardboard	Lath nail. Gimp pin.	25	1,8
Softboard	Clout nail.	40	2,36

Fig 8 **Improved Nails**

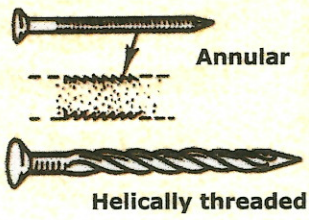
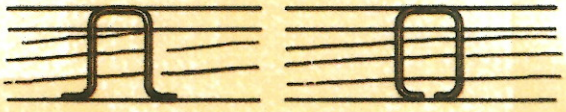


Fig 9

Fig 10



Fixing Procedures

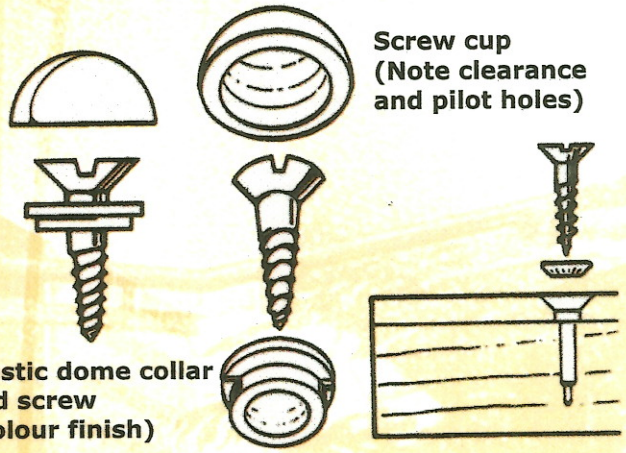
Screws

For certain applications, screws are preferable to nails, staples or adhesives, eg. where access to services or equipment will be required at a later date for maintenance, repair or replacement.

Most of the common types of woodscrew can be used with fibre building boards, but rust-resistant varieties are preferable. Where countersunk-head screws are used with the thinner hardboards or softboard, screw cups or collars should be used. Fig. 11 shows the variety of treatments available.

Where fixing is through the board, the gauge and length of screw will depend on the particular background material and its dimensions. The hole in the board should be a clearance hole, ie. slightly larger than the screw shank diameter. This allows a completely tight joint to be made beween board and background.

Fig 11



Adhesives

The use of adhesives obviates the need to conceal nail heads on panelling. This is specially important with primecoated and prefinished panels eg. Timbawall®. Although most woodworking adhesives can be used, certain types of adhesive systems are especially suited to this range of sheet materials for particular applications. To obtain the best results when veneering, laminating, or glueing hardboard to a framed structure it is recommended that the face to be bonded is sanded to ensure proper adhesion. When bonding to the screen side it is necessary to remove as much of the screen impression as is required to ensure adequate contact.

Commonly used adhesives include solvent-based contact adhesives, urea-formaldehyde, phenolic resin and PVA. Phenolic resin is recommended when high water resistance is required.

It must be strongly emphasised however, that the advice of reputable adhesive manufacturers' should be sought whenever circumstances demand it.

Boards should be properly "conditioned" before adhesive application. In addition, careful consideration should be given to the optimum conditions for bonding including temperature control, cleanliness and soundness of the surfaces to be bonded, and the spacing of supports.

MASONITE®

Decoration

Edge Treatment

All exposed edges of exterior panels should receive some form of treatment. Most edge treatments consist of a bevelled or rounded edge which can be obtained with a woodworking plane, sandpaper or a special bevelling tool. (A bevelling tool has an adjustable blade to control the depth of cut to ensure that all edges are uniform.) For long production runs use a spindle moulder.

Decorating

Generally, every type of finish for wood is satisfactory for hardboard. These include paint, baked enamel, varnish, synthetic resins, wax, and penetrating sealers.

Surface Preparation

The surface to be finished must be clean and dry. Dirt may be removed with mild soap and water. Caustics or strong alkalis should not be used, small areas of grease may be removed with solvents.

Application

Finishing materials may be applied by brush, curtain-coater, spray or roller. In finishing, the importance of the first coat cannot be overstressed. Be sure this initial coat, which may be clear or pigmented, will be suitable for any subsequent coats. For especially smooth finishes, sand lightly between coats with extra fine sandpaper. Clean surface with a rag after sanding. Use only quality products and it is most important to carefully folow the manufacturers' instructions.

Painting and Staining

For most work a three-coat application is required.

1. Hardboard primer or universal undercoat (pink wood primer is not suitable)
2. Undercoat.
3. Finishing coat. Alternatively two finishing coats.

Primecote® can be adequately finished with a single coat if applied with a spraygun, but two coats may be needed if paint is brushed on. Use a type of paint best suited for the particular purpose. For interior work, any good grade of interior paint or enamel may be used. On exterior applications, the hardboard surface and exposed edges must be given a protective three-coat finish of exterior grade paint or enamel. When in doubt consult the Technical Department of your paint manufacturer, who will be only too willing to assist you.

Note: Sodium silicate provides a good sealer coat particularly on exterior exposed edges and for sealing of fixing holes in exterior applications eg. signboards.

Natural Finish

Application of clear finishes such as varnish, penetrating sealers, shellac, etc., tends to darken the board to a minor degree but does not detract from the natural colour. Another method of retaining the natural finish is the simple application of a white wax polish which may be brushed to a lustre.

Penetrating Sealers

These provide an excellent means of finishing and maintaining Tempered Presdwood® work surfaces. They are easily applied, fast-drying and simply maintained by cleaning the surface and applying a fresh coat of sealer as and when wear takes place.

Staining

Any of the following may be used in staining or tinting Masonite® Brand Presdwoods:

- Wood stains
- Colour-in-oil thinned slightly with sub turps.
- Dry pigment or colour-in-oil in a clear sub turps sealer.
- Flat oil paint thinned with turpentine.

MASONITE®

Bending

While compound curves such as dished shapes, etc, are not always possible, Masonite hardboard products can easily be bent to form simple, one-directional curves. These fall into two general types:

1. Those which must be supported with a permanent framework;
2. Those which are self-supporting.

Cold Dry Bends

Supported bends only. Preparation - no special treatment is required. Method - starting at one end, permanently fasten panel as it is wrapped around the form. See Table 5 for minimum bending radii.

Cold Moist Bends

Supported and self-supporting bends. Preparation - moisture content of the panels should be increased prior to the bending operation by one of the following methods: Totally submerge the board to be bent in water (not exceeding 40 C) for a minimum period of 2 hours. The period of total immersion is dependent upon the thickness of the board and the radius of the desired bend. Stack boards after immersion to equalise moisture content. If a sufficiently large container is not available, scrub water into the screen side and stack face to face, separating the sheets with wet paper. The stack should be covered to prevent evaporation and allowed to stand for the following periods of time:

Standard grades: approx. 24 hours
Tempered grades: approx. 48 hours

Method - Supported Bends: Starting at one end, permanently fasten panel as it is wrapped around the form.

Method - Structural or Self-supported Bends:
The radius of the form should be slightly less than that desired in the final bend, to allow for springback. Starting at one end fasten the panel as it is wrapped around the form. Allow the board to dry completely on the form before removal. Drying time may be reduced by the application of heat. See Table 5 for minimum bending radii.

Hot Moist Bends

Self-supported bend only. Preparation - moisten panel as described under "Cold Moist Bends", but use hot water up to 55 C. Method - moist panels should be wrapped around heated forms where they remain until thoroughly dry. The radius of the form should be slightly less than that desired to allow for springback. The temperature of the roll or form should be 150 to 200 C constant and uniformly distributed. See Table 5 for minimum bending radii.

Heated Rolls

Stationary or rotating, fitted with the necessary clamps and accessories. Heating mediums may be steam, electricity or hot oil depending upon the equiment used.

TABLE 5
Minimum bending radii

BOARD TYPE	THICKNESS (mm)	BENDING RADIUS (mm) A DRY		B WET		C WET/HOT	
		(arrows indicate mesh surface)					
		↓	↓	↓	↓	↓	↓
Standard	3,2	300	250	175	125	85	75
	4,8	450	400	250	200	110	100
	6,4	675	600	375	300	150	125
Tempered	3,2	225	175	150	100	60	50
	4,8	400	350	225	150	85	75
	6,4	625	550	350	250	125	100

A - At ordinary room temperature and moisture contents.
B - After immersion in clean water (up to 40°C) for at least two hours and then stacked to allow water penetration to each board.
C - After soaking in hot water (up to 55°C) followed by bending around a heated mandrel at about 180°C.

Storage and Handling

All boards should be stored under cover (i.e protected from rain and direct sunlight) but do not necessarily have to be in a totally enclosed building. In warm or hot weather conditions avoid storage in direct sunlight as this may cause an unwanted fall in moisture content and/or a bleaching of the natural board colour. In wet weather conditions, boards should be protected from the rain and excessive humidity.

Boards are usually delivered from the the factory in various forms of unitised packs such as pallet loads of boards bundled together with metal or plastic straps. Stacking of unitised packs is important and there should be sufficient bearers to support the boards without allowing sagging between bearers and the bearers must be vertically aligned- see Fig. 12. The strapping bands should be cut as soon as practical after delivery to prevent them permanently deforming the boards.

Hardboard which has warped due to uneven uptake of moisture may be flattened by thoroughly wetting the screen face and leaving stacked flat, weighted where necessary, for several days - see Table 2.

When boards are unpacked and sorted into smaller batches they should again be stored flat. If this is not possible, they should be stacked vertically along their longer edges and adequately supported - See Fig 13.

Special care must be taken to avoid damage to edges and corners during handling and transportation. This is especially important with "higher value" pre-decorated boards.

Fig 12

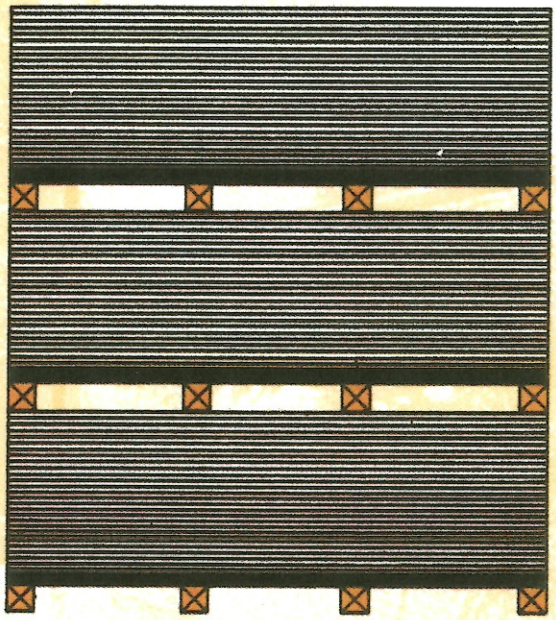
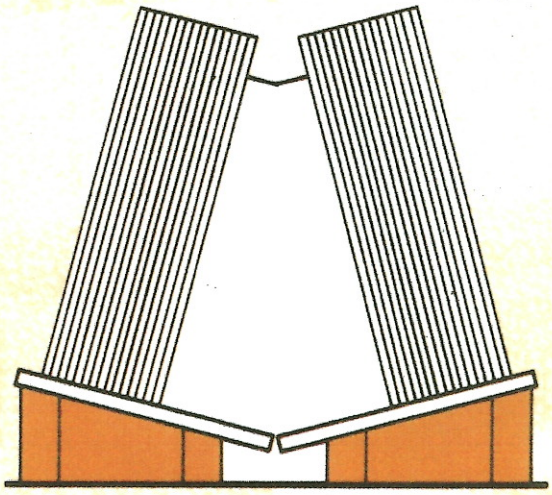


Fig 13



MASONITE®

Manufacturing...

Hardboard

Hardboard is produced from timber which is reduced to lignocellulose fibres, wet-felted and hot pressed to form sheets. The primary bond is derived from the felting process and inherent adhesive properties of the lignin which occur naturally in timber. Surface texture is smooth or embossed on one side with a fine mesh pattern on the reverse. Masonite® Brand hardboard is commonly referred to by the trade name Presdwood®

Hardboard has many of the desirable characteristics of wood, but is without the defects found in wood. It is grainless, knotless, and will not easily split or splinter. It can also be bent, curved or moulded to various shapes and has good machining properties, nailability and high internal bond strength for glueing. These important benefits, along with a high structural strength, good dimensional stability, durability, resistance to abrasion and a smooth surface make hardboard ideal for use in the furniture, door manufacturing, construction, automotive and packaging industries.

MASONITE HARDBOARD PHYSICAL PROPERTIES

PROPERTY	UNIT		STANDARD PRESDWOOD			TEMPERED PRESDWOOD		
Nominal Thickness	mm		3.2	4.8	6.4	3.2	4.8	6.4
Thickness Tolerance (unsanded)	mm	±	0.4	0.4	0.4	0.4	0.4	0.4
Mass	kg/m^2	approx.	3.2	4.8	6.4	3.2	4.8	6.4
Density	kg/m^3	min.	940	940	940	960	960	960
Bending Strength (M.O.R)	MPa	min.	38	38	38	50	50	50
Interlamina Tensile Strength (Bond)	MPa	min.	0.7	0.7	0.7	1.0	1.0	1.0
Sheer Resistance	MPa	Av.	35	35	35	40	40	40
Lateral Nail Holding Ability (Using a 3mm diameter pin)	N/mm Thick	min.	120	120	120	125	125	125
Water Absorption after 24hrs immersion at 20°C	%	max.	30	20	16	24	20	15
Thickness increase after 24hrs in water at 20°C	%	max.	18	16	14	16	16	14
Thickness Increase from 33% to 90% RH at 20°C	%	max.	7	7	7	7	7	7
Linear Expansion/Contraction in range 33% to 90% RH at 20°C	%	max.	0.25	0.25	0.25	0.25	0.25	0.25
Thermal Conductivity	K W/m°C	Av.	0.12	0.12	0.12	0.14	0.14	0.14
Thermal Resistance	R m^2 °C/W	Av.	0.027	0.04	0.053	0.025	0.034	0.046

Softboard

Softboard is made up of wet-felted wood fibres combined into a relatively soft board of uniform density and thickness. The cellular nature of the material results in a lightweight multi-purpose sheet or panel having good thermal and sound insulation properties. The board, as it is produced, has a light brown textured finish but may be obtained with a factory applied pre-painted (primecoat) finish.

Easy to handle and durable, softboard has numerous uses in homes, offices, factories and educational institutions. It is particularly suitable for use as ceiling boards, protective packaging and protection of high cost horizontal & vertical surfaces on building projects, display boards, pinning board substrate, internal office screen material, and much more.

Flexijoint

Flexijoint, an ideal lightweight expansion jointing material for concrete structures, is derived from the addition of bitumen during the standard softboard manufacturing process. Due to excellent compression and recovery ratios, as well as minimum water absorption and thickness swell characteristics, it has an outstanding ability to hold a constant joint size.

Used mainly for high rise buildings, pavements, gutters, curbs, aprons, driveways and other concrete strips, streets and highways, Flexijoint is also suitable for vertical/horizontal supports and reinforced concrete structures such as bridges, retaining walls and piers.

MASONITE SOFTBOARD PHYSICAL PROPERTIES

PROPERTY	UNIT		SOFTBOARD			FLEXIJOINT	
Nominal Thickness	mm		10.00	13.00	19.00	10.00	13.00
Thickness Tolerance	mm	±	0.8	0.8	0.8	0.7	0.7
Mass	kg/m^2	approx.	2.3	3.2	4.8	2.3	3.2
Density	kg/m^3	max.	400	400	400	400	400
Bending Strength (M.O.R)	MPa	min.	2	2	2	2	2
Lateral Nail Holding Ability (Using a 3mm diameter pin)	N/mm Thick	min.	14	14	14	14	14
Water Absorption after 2hrs immersion at 20°C	%	max.	35	30	23	28	23
Linear Expansion/Contraction in range 33% to 90% RH at 20°C	%	max.	0.5	0.5	0.5		
Thermal Conductivity	K W/m°C	Av.	0.06	0.06	0.06	0.06	0.06
Thermal Resistance	R m^2°C/W	Av.	0.222	0.289	0.422	0.222	0.289

MASONITE®

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