

A collage of images illustrating the installation of Masonite underlayment. The top section features the text "MASONITE UNDERLAY" in white on a green background. Below this, a grid of images shows the process: selecting underlayment panels, measuring and cutting them, and using a hand plane and a power sander to smooth the surface. The bottom right corner shows a close-up of the finished, sanded underlayment surface.

**MASONITE
UNDERLAY**

Australian
HARDBOARDS

THE NATURAL CHOICE

COMPANY OVERVIEW

Australian Hardboards Limited is the sole Australian manufacturer of 100% all natural thin hardboards.

Well established, our greatest strength is our ability to manufacture and supply high quality, environmentally friendly and market driven products both competitively and efficiently.

Servicing the domestic, manufacturing, flooring, signage, commercial, retail, hardware and home building industries, our innovative products and services offer numerous benefits to the specifier, installer and consumer.



ENVIRO-FRIENDLY

Australian Hardboards products are environmentally friendly, utilising what has been previously regarded as waste material in an ecologically sustainable manner.

This waste material, consisting of sawmill residue and forest thinnings, uses only naturally occurring wood glues (lignins) to bond fibres, eliminating the need for synthetic glues and resins.

In natural timber, the wood fibres are aligned parallel with the grain of the timber. In Masonite™ Underlay, the wood fibres are rearranged and distributed at random producing a high quality hardboard panel.

MASONITE UNDERLAY

Improves the appearance and extends the life of new floor coverings.

Masonite™ Underlay is for use over strip timber, concrete, particleboard and plywood floors to provide a flat, uniform, indent resistant base for resilient sheet floor coverings. These include flexible and semi-rigid PVC, cork, rubber, linoleum and cushioned vinyl. Masonite™ Underlay may also be used beneath textile floor coverings.

“Masonite™ Hardboard Underlay is forgiving to even the worst subfloors...and I’ve seen a few in the 25 years I’ve been laying floor coverings. It’s more stable than other products, yet adaptable too.”

Peter Johns, M & P Floorcovering Specialists

PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUE	PROPERTY	TYPICAL VALUE
Density (typically)	960 kg/m ²	Impact Strength	4000 J/m ²
Mass/Unit Area	5.3 kg/m ²	Internal Bond Strength	1000 kPa
Modulus of Rupture	30 MPa	Thermal Conductivity	0.18 W/(m.K)
Modulus of Elasticity	4000 MPa	Hygro-Expansivity	0.25% Change in face dimensions over 50% to 90% relative humidity.

PRODUCT DETAILS

DIMENSIONS	TOLERANCES	SQUARENESS	AREA	MASS PER UNIT AREA	PACKAGING	BUNDLE DETAILS
1220mm x 915mm x 5.5mm	Length ±1.0mm Width ±1.0mm Thickness ±0.15mm	Variation in diagonals not more than 1.0mm	1.12m ² /sheet	5.3kg/m ² or 5.9kg/sheet	15 Bundles of 8 sheets paper wrapped (120 sheets) strapped to a disposable timber pallet	Coverage 8.9m ² Mass 47kg

WHY MORE INSTALLERS CHOOSE MASONITE™ UNDERLAY

STRENGTH

- Masonite™ Underlay is less likely to retain indentations caused by point loads from things such as table legs, chairs, stools, book cases, wall units and high heel shoes.
- Masonite™ Underlay is less likely to be affected by moisture as the sheets are preconditioned to improve stability.
- Minimise the adverse effect of movement in the subfloor on the floor covering as Masonite™ Underlay bridges any irregularities in the subfloor.
- Tough, flexible and resistant to cracking or fracturing.

SAVINGS

- Only a small price to pay when you consider the replacement cost of your floor covering.
- Smooth surface allows even and economical application of adhesive.
- Easy to work and fix with normal carpenter tools and flooring installation equipment. Special tools are unnecessary.

ECO-SAFE

- Masonite™ Underlay is an environmentally friendly product using sawmill waste and forest thinnings.
- No chemicals, no resins, 100% natural hardwood.
- Only wood-based product that complies to AS:1884-1985 Floor Coverings—Resilient Sheet and Tiles—Laying and Maintenance Practices.

ECO-RESPONSIBLE

- Made from sawmill waste and forest thinnings (100% hardwood)

AUSTRALIAN MADE

- Proudly made in Australia.

SIZE

- Light weight and easy to handle.
- Available in: Length x Width 1220 x 915(mm)
Thickness 5.5(mm)



TYPES OF SUB FLOORS

Sub-floors suitable for the application of Masonite™ Underlay are:

- Structural and non structural timber flooring (strip or solid)
- Structural and non structural plywood and particleboard flooring
- Concrete sub-floors

PREPARATION

Good ventilation is essential under floors to prevent distortion, possible decay and excessive movement of the sub-floor, frame supports and underlay. If inadequate ventilation exists, subsequent damage to the floor covering material or adhesive system will occur.

The moisture content of timber, plywood or particleboard subfloors and their structural supports must be checked before the underlay is installed.

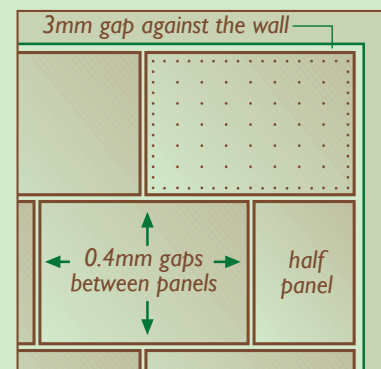
Acceptable moisture content range is 9% -14%. Where existing timber, plywood or particleboard floors are to be used as a sub-floor for hard underlay installation, any worn, rough, cupped or warped surfaces should be repaired, sanded, filled or replaced to achieve a plane, smooth surface prior to the installation of the underlay. The sub-floor must retain its structural adequacy.



NB: For best practice, Masonite™ Underlay should be dry laid and left for 24 hours; this will allow the underlay to reach an equilibrium with its surroundings before being fixed to the sub-floor. The most prominent cause of joint show through is non-conditioning of underlay.

SHEET LAYOUT

Remove the Masonite™ Underlay from the packaging and install smooth side up. Starting on a straight wall with the long edges of the underlay at 90 degrees or at right angles to the longitudinal direction of the subfloor and using an ashlar/brick pattern (right). Lay the Masonite™ Underlay sheets leaving a 3mm-expansion gap around the perimeter walls and fixtures.

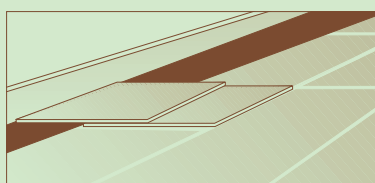


A 0.4mm-expansion gap between the sheets (business card or Stanley knife width) is essential.

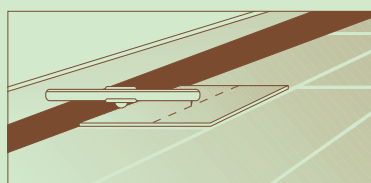
Make sure that the underlay joints do not fall on joins in the sub-floor. This could allow movement and damage the floor covering.

MARKING OUT THE UNDERLAY

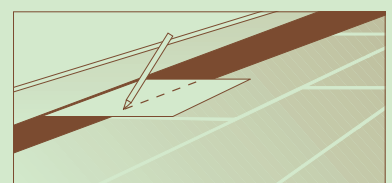
There are three ways to mark Masonite™ Underlay sheets before you cut them, so that the fit to the wall and fixtures is neat and accurate.



Tile-on-tile method



Scribe bar method



Pattern Scribe method

CUTTING

Masonite™ Underlay can be cut using any of these tools:

- Circular saw (33mm tooth).
- Jig saw (fine tooth) or timber blade.
- Hand saw (fine tooth) or panel saw.
- Utility knife (heavy duty blade - not break away type).

Always butt Masonite™ Underlay factory edge to factory edge and keep the cut edges to perimeter walls.

ADHESIVES

ADHESIVES FOR WOODED SUB-FLOORS

Adhesives are to be used when Masonite™ Underlay is fixed to plywood, particleboard or soft solid pine sub-floor (with nails and staples) are:

- Flexible Polyurethane adhesives such as Polymer 1200 or Roberts 600 are recommended.
- Construction adhesives are acceptable except for concrete sub-floors.
- Some high solid flexible PVA adhesives are acceptable.

NB: In case of structural movement or excessive changes in atmospheric relative humidity in a building, the filling of expansion joints in Masonite™ Underlay is not recommended.

ADHESIVES FOR CONCRETE SUB-FLOORS

- A premium grade flexible polyurethane type adhesive is suitable for this application.



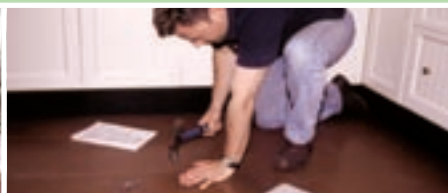
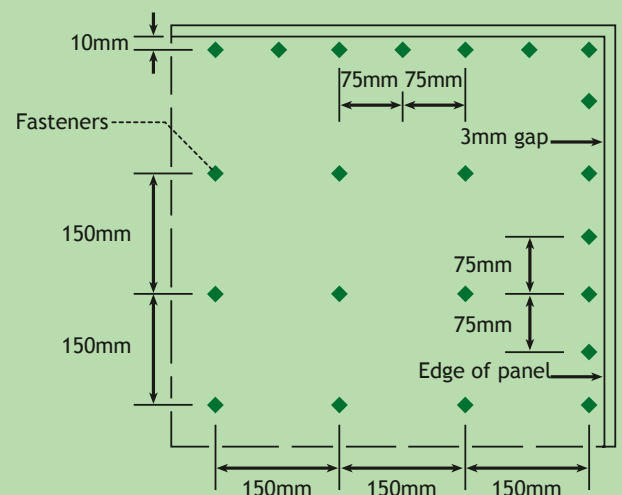
FASTENER SPACING

The correct spacing when using nails or staples to fix Masonite™ Underlay to timber sub-floors is:

- 10mm in from the perimeter of the sheet.
- 75mm around the perimeter of the sheet.
- 150mm through the body of the sheet.

Avoid nailing into sub-floor joints. Check to ensure that all staples or nails, are **0.4mm (business card or Stanley knife width)** below the surface of the Masonite™ Underlay.

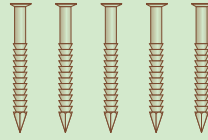
NB: Always comply with Occupational Health and Safety requirements and follow manufacturers' recommendations.



FIXING

FIXING TO A PLYWOOD OR PARTICLEBOARD FLOOR

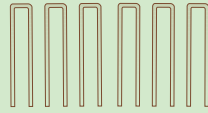
The use of adhesive in conjunction with staples is important when installing Masonite™ Underlay over plywood or particleboard sub-floors (refer to Adhesives manufacturer for further recommendations).



NB: 25mm x 2.5mm head ring grooved buttress type underlay nails.

FIXING TO A TIMBER SUB-FLOOR

Staples or nails are the recommended fixings, for the installation of Masonite™ Underlay over solid timber flooring.



NB: Staples: 22mm resin coated staples or staples 3mm longer than the existing sub-floor.

FIXING TO A CONCRETE SUB-FLOOR

Prepare the concrete sub-floor as per the adhesive manufacturer's recommendation and ensure the concrete is dry (refer to Australian Standard AS1884) and dry lay the underlay allowing the recommended expansion of 0.4mm between sheets and 3mm around the perimeter. Up-lift Masonite Underlay sheet and apply adhesive to sub-floor using a V3 trowel. Place the Masonite Underlay sheets into the adhesive and roll with a 40kg roller weight.

Allow the adhesive to cure. Weight is required if changes in relative humidity delays adhesive bond time or cause the underlay to lift around the perimeter.

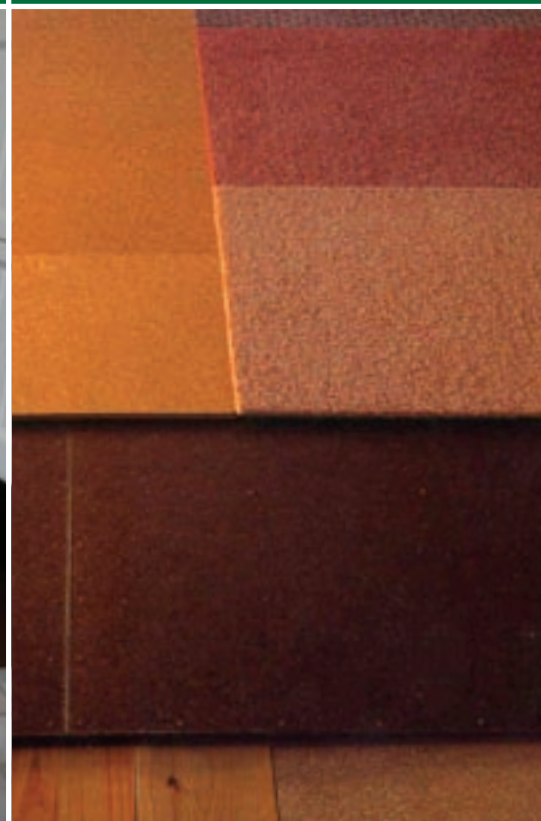
Masonite™ Underlay can be used to:

1. Bridge small to medium irregularities in the concrete sub-floor.
2. Form a level and smooth surface for the installation of floor covering materials over concrete sub-floors.
3. Raise the level of a concrete sub-floor by up to 5.5mm.

Prepare the concrete sub-floor as per the adhesive manufacturers recommendations.

NB: Avoid alkaline substances, as high pH values can promote swelling in natural reconstituted timber products.





FINISHING

Using a flat based sanding machine (Polyvac or similar) or sanding block. Carefully sand the Masonite™ Underlay joints to a level plane. Light sanding of the fixing points will remove any fibre build up. Sweep or vacuum the floor so that all dust and loose fibre is removed. Masonite™ Underlay is then ready to receive the floor covering material.

The use of a small disk type sander on Masonite™ Underlay joints, will create a concave affect that will show in the finished floor covering.

FLOOR COVERINGS

Masonite™ Underlay creates an excellent base for all types of floor coverings:

- Resilient direct stick or loose laid over Masonite™ Underlay.
- Textiles direct stick and conventional lay.
- Timber products.

Floor covering manufacturers recommend premium grade adhesives such as Polymer 265 or similar for use with their product.

NB: All adhesives to be used in accordance with manufacturers recommendations.

NB: Where underlay sheet is applied over timber, plywood or particleboard sub-floors, the outline of underlay sheet joins may show through resilient floor covering materials under certain reflective light. This show through may also occur as the moisture content of timber changes in response to variations in atmospheric relative humidity conditions.

NB: Please use a qualified installer.

CONDITIONING

Under adverse climatic conditions or inadequate ventilation, it is recommended that Masonite™ Underlay sheets be loose or individually exposed to the conditions on site for at least 24 hours before fixing.

HANDLING AND STORAGE

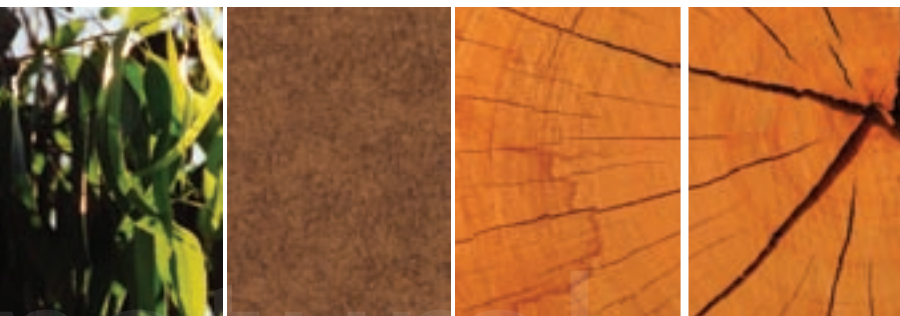
Keep clear of sharp protrusions. Stack panels flat on pallets or timber runners in a dry area with a moderate temperature and reasonably constant relative humidity. Storage in direct sunlight, damp locations or hot, dry buildings should be avoided.

AUSTRALIAN STANDARDS

- AS 1884-1985: Floor Coverings—Resilient Sheet and Tiles —Laying and Maintenance Practices
- AS/NZS 2455.1:1995: Textile Floor Coverings - Installation Practice.
- Indent resistant standard

HEALTH AND SAFETY WARNING

Inhalation of dust generated from processing Masonite Underlay 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. Call Customer Service on 1300 366 681 for a Material Safety Data Sheet.



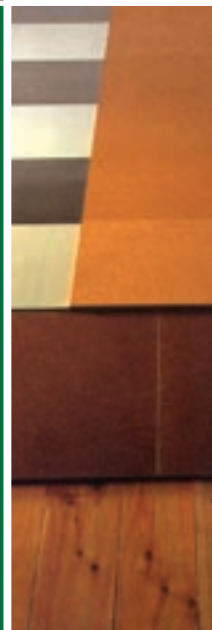
It is our intention to maintain a sustainable, environmentally responsible business that respects the quality of the environment and uses resources efficiently.

THE NATURAL CHOICE

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