



TOUCHWOOD ACCOYA DECKING

INSTALLATION GUIDE (TWD145)



GENERAL INFORMATION

IMPORTANT: Please read this entire install guide prior to installing your Accoya deck. This guide is designed to assist the installer in understanding the requirements surrounding the installation of Britton Timbers Touchwood Accoya decking boards and is based on good building practices and construction techniques.

Given each application or project is subject to variables such as climate, State and Council based legislative requirements. This document is to serve as a guide only. It should be read in conjunction with the current Building Code of Australia.

It is advised that only qualified tradespeople with the relevant skill and experience install this product.

It is the installer's responsibility to ensure the structural integrity of the building complies with all authoritative documents.

The drawings in this guide are for illustrations purposes only.

Accoya A1 quality and Accoya Colour are classified as C22 strength grade (equivalent to MGP10) and Accoya A2 quality is classified as C16 strength grade (equivalent to MGP8). Accoya A1 grade can be used for load-bearing members such as posts, joists, beams or decking stringers. It is recommended to wear dust masks, gloves and eye protection devices to avoid possible irritation from sawdust and chips. Hands should be washed after construction work.

The system used must be designed to the specific application requirement, in accordance with all applicable local building standards and regulations. The strength of the total system - spacing, number and type of fasteners required - must always be checked by a licensed professional. To the best of the knowledge and belief of Accsys Technologies the information contained in this

document is in accordance with common building practice and is provided on the basis that Accsys Technologies and/or any of its affiliates, officers, employees or advisers are not liable for any loss or damage whatsoever in respect of the accuracy or completeness of such information or the result of having acted upon it.

ACCOYA wood should always be installed and used in accordance with the written instructions and guidelines of Accsys Technologies and/or its agents (available upon request). Accsys Technologies accepts no liability for any defect, damage or loss that may occur where such written instructions and guidelines are not adhered to. No liability is accepted in relation to any coating, fastener or other product of a third party applied to ACCOYA wood.

SAFETY

When working with wood on any construction project, proper care should be taken relative to PPE and tool management. Use of protective clothing, inclusive of safety glasses, dust masks and protective shoes are important. Further protection can be provided using gloves, hardhats and long-sleeve shirts. When working in confined areas, use of appropriate dust collection and management systems may be required.



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STORAGE

Accoya is stored locally in our distribution facilities in 145x20 boards for decking applications. If other sections are required, please contact our nearest branch for availability. Accoya packs are strapped with bolsters properly spaced and secured. Once the pack is open or reconditioned, it is important to place the bolsters no less than every 1.5m.

Accoya should always be stored on a dry surface and protected from the weather elements.

Fine surface checks are normal in wood decking boards and may be present in Accoya too. After installation, some surface checks may appear as the wood begins to weather. This is a natural phenomenon on Accoya and have no effect on its durability.

PLANNING

Deck Boards

Accoya is suitable for all standard decking types. The installer is required to follow the same installation recommendations as with a traditional soft wood decking, requiring no special detailing or tools, and performs best when installed properly on a suitable frame.

Beauty, strength, sustainability and all-weather performance are important characteristics when choosing a decking material. Accoya wood embodies all these characteristics – from its natural beauty to its exceptional performance.

Accoya is proven to provide both a long-life and low maintenance decking solution which few other decking materials can offer. Accoya can be profiled to suit project specifications and comes with a 25-year warranty against rot and decay and 50 years for applications greater than 200mm above ground level.

Discolouration

Accoya boards have a discoloured zone around the perimeter. Wood resins move from the core of the wood to outer zone during kiln drying. These resins are then solubilised and darkened during the acetylation process which causes discolouration in this outer zone. The level and depth of discolouration depends on factors such as the amount of resin in particular logs and boards.

Individual boards are spaced with small battens, typically leaving a lighter mark where they meet the board – known as sticker marks. The acetylation process can result in

discoloration generally up to 6mm in depth with sticker marks up to a similar depth, and due to natural wood variation, occasionally deeper.

Discolouration and sticker marks visible on surfaced, non-coated product applications will fade over the course of days and months proportionate to the level of UV exposure. Discolouration can be more apparent once the wood is wet.

Differential Weathering

Weathering can vary across the deck boards and building elevations due to variation in sunlight and rain exposure. The initial light colour of uncoated Accoya decking boards may cause early moulds and blemishes to stand out more than on other wood types, prior to it weathering further to grey.

Surface Fibres

Uncoated Accoya wood may show a degree of surface fibres after being exposed for some time, which will eventually erode. A ribbed deck profile will tend to cause an accumulation of these fibres, making it more noticeable.

The use of pressure washers can increase occurrence of surface fibres. Using such cleaning devices will lead to the damage of the uppermost surface layer of wood.

Accoya Color

Accoya Color has been coloured to the core to a stylish grey, with a colour life at least 3 to 4 times that of tropical hardwoods.

Accoya Color is a natural wood product that is subject to variations in shade and uniformity of colour. Please note that there can be small non-coloured areas within grade. All Accoya Color supplied to Australia is grade A1 Accoya. While every piece of Accoya Color is coloured from the surface to core and is durability Class 1 (EN 113-2 (EN84), ENV 807, EN 252 and AS5604), please be aware that the product may appear with colour variation depending on its natural wood grain as well as the environment the product is exposed to.

Accoya Color provides a durable and more uniform appearance through the range of weathering than other wood deck options. It is advised to mix and match boards before installation to provide an aesthetically pleasing mix of shades.



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Available Sizes

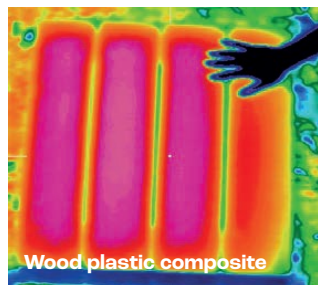
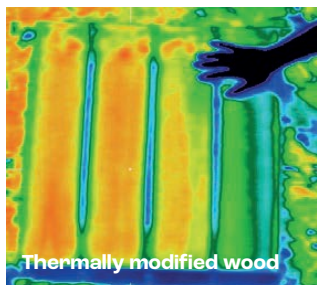
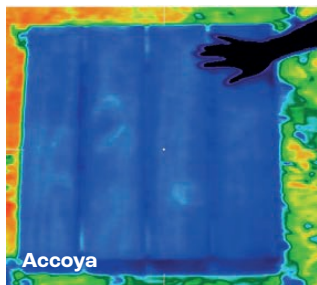
Accoya and Accoya Colour is available in 150mm width and 25mm thick, resulting in a finished decking board of 145mm width and 20mm thick. For Government and commercial projects, 38 and 50mm thickness are available in regular Accoya only. For all available sizes, please check the wood data sheets, available on accoya.com.

Barefoot Friendly

Thermal gain on decks and terraces is a particular issue in the summer season. A thermogram image analysis was arranged in Japan with the Hiroshima Prefectural Technology Research Institute to assess differences between Accoya®, thermally modified wood and three variants of commercial WPC decking.

The ambient temperature during the testing of all decks was 32°C. Deck board dimensions were comparable for all three types:

- Accoya® 26 x 140
- Thermally modified wood 26 x 140
- WPC 25 x 145



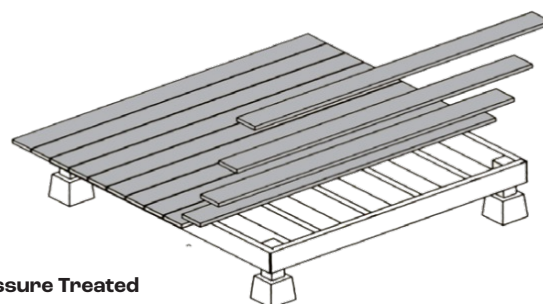
The thermograms clearly indicate thermal gain in Accoya® is substantially less than the alternatives tested. This low level of thermal gain, combined with in-situ benefits derived from Accoya® dimensional stability provide deck boards which are truly 'barefoot friendly'. In-situ benefits derived from Accoya® stability are the boards resisting

cupping and remaining flat, the fixings not being stressed and remaining flush, and finally, the boards not suffering splintering with prolonged weathering.

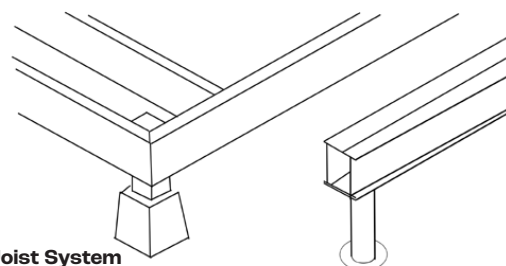
DESIGN

Framework Options

Before installing your Accoya deck, you need to decide on your deck substructure. Materials and options include treated H4 timber joists, hardwood joists, or an engineered steel joist systems. Always refer to the manufacturers' installation guides and local building codes prior to beginning your build.



Pressure Treated



Steel Joist System

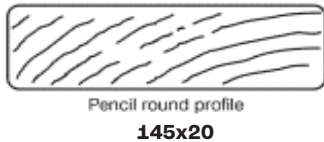
Select your material of choice for the decking substructure and determine the allowable span based off the relevant span tables in Australian Standard AS1684 Residential timber-framed construction. Please always check you are adhering to the local building standard on required spans and joist spacing. If using H4 pressure treated timber or hardwood joists, you will need to lay a protective tape onto the joists to prevent possible H4 chemical leaching or tannin bleeding that may result in staining to the Accoya deck boards. If using a steel joist system, a protective tape across the full width of the joist and lipping the edge is required to prevent corrosion of the joist through contact with Accoya.



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Surface Profiling

Accoya decking boards can be profiled to different designs, however our recommended and most common profile is Pencil Round Edged (3mm) as illustrated below.



Slip Resistance

Britton Timbers has commissioned slip resistance testing through Independent Slip Testing Services in accordance with AS 4586-2013 with the results shown in the table below.

| Testing was carried out using the Wet Pendulum Test Method in accordance with Australian Standard AS 4586-2013 Appendix A Form #31.05 Revision date 8-12-2023 | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Classification | Pendulum Mean BPN (4S rubber) |
| P4 | 48 |
| The mean results of the five specimens is reported (rounded to the nearest whole number). | |
| ^ An individual result both below the result classification and below the mean result minus 20% shall be considered of lower classification. | |
| Maximum Slope Design Value (when dry) | 4 deg. |
| Maximum Slope Design Value (when wet) | 1.5 deg. |
| ^ NCC Code provides reference for ramps up to 1:8 | |

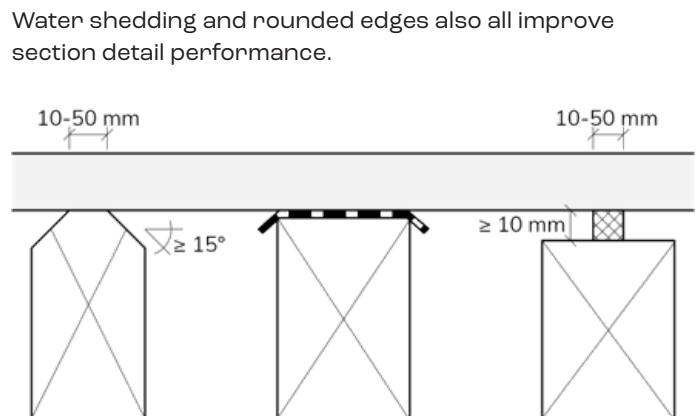
Please refer to the National Construction Code Compliance Classifications to ensure it meets the relevant NCC requirements for your project.

Joist Spacing

Required to be done in accordance with Australian Standard AS1684 Residential timber-framed construction as per the table below

| Decking Boards | | | |
|------------------|----------------------------|----------------|----------------------------|
| Decking | Minimum Grade | Thickness (mm) | Maximum Joint Spacing (mm) |
| Treated Softwood | Standard Grade (AS 4785.1) | 19 | 400 |
| | | 22 | 450 |

It is also recommended to take measures to increase the drying speed for any timber sub-frame joist (of at least durability class 1 or 2), but especially important for joists over 50 mm wide. Below some examples of how to achieve this, e.g. reducing the contact surface with the decking boards.

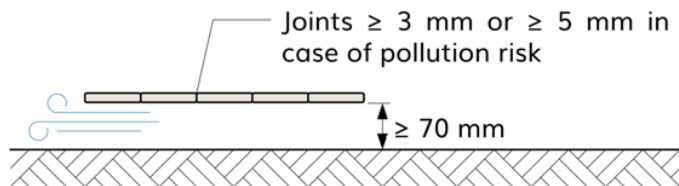




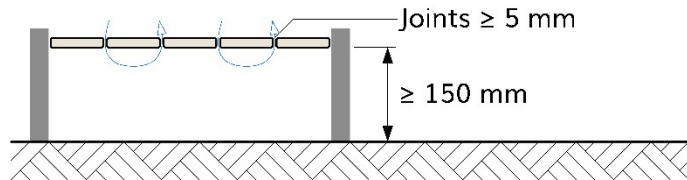
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Ventilation

You will also need to ensure that there is sufficient airflow under the deck. Like all decking materials, Accoya performs best when installed properly on a suitable frame and in a ventilated system, characterized by continuous ventilation beneath the decking boards. This allows the deck to dry out. Minimum requirements are depicted below. The subsurface the decking is installed on should be sufficiently strong and rigid and with a slope of at least 2% (up to 5%).



Deck has clear air flow from one end to the other (clear flow on two parallel sides) and is no less than 70mm off of the ground, water or other substrates.



Deck does not have clear air flow from one end to the other and is no less than 150mm off the ground, water or other substrates.

Note that for an extended 50 year warranty, the deck needs to be kept clear off the ground for at least 200mm.



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INSTALLATION

Installing Accoya Decking

Spacing Requirements

When working with Accoya it is important to follow spacing guidelines to allow small levels of movement and permit ventilation. Leaving a 3mm gap or greater between boards ensures the best results for decks with ventilation around the perimeter.

For good practice it is recommended to leave a space of 10mm with other construction elements.



Cutting / Docking

Accoya deck boards can be cut with conventional woodworking tools; for an optimal finish, a docking saw with a tungsten carbide blade with 60 or more teeth should be used. Any loose burrs can be removed with sandpaper.

Metal Work

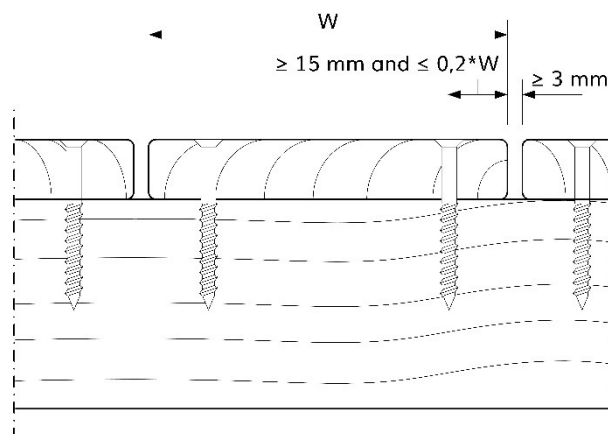
Accoya is corrosive to steel and galvanized steel. All metal work used in construction of Accoya deck and in contact with Accoya should be stainless steel. Where stainless steel is not available, an isolation barrier is to be used. Alternatively, commercial grade aluminium (3000, 5000, 6000) joists can be used for a sub-frame.

TIP: It is recommended to hose or brush off Accoya decking with clear water after installation to remove any fine dust particles which may transfer onto shoes or clothing. NO pressure cleaning with Accoya.

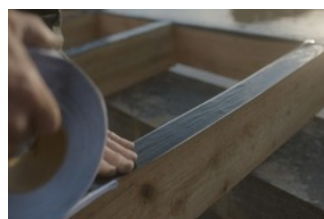
FIXING SYSTEMS

Stainless Steel Screws

The Accoya decking boards need to be installed with Stainless Steel 304 grade for inland applications and Stainless Steel 316 for coastal exposure (up to 2km from the coast).



To prevent end grain splitting, you will need to ensure that the fastener is placed with at least a 35mm clearance to the end of the decking board. Pre-drilling all fixing holes is required to avoid splitting. The screw distance to the edges of the boards should be at least 15 mm, but less than 20% of the board width. Please check the screw head/shank dimensions with your local system partner.



NOTE: Accoya decking boards are easier on the installer. A 3.65m lpe board weights 14.5 kg, a composite board in the region of 12kg and an Accoya board almost 7kg, all on a 32 x 150mm nominal basis. The ease of install doesn't end there, as Accoya boards are straighter and easier to fix than typical hardwood deck boards.



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MAINTENANCE

Accoya is non-toxic and therefore has no effect on resistance to surface moulds and algae (biofilm). Surface mould and algae may develop on the surface, particularly in shaded and wetter areas.

Accoya lends itself to easy maintenance with nothing more than a medium soft nylon brush and a bit of pH neutral soapy water followed by a good rinse of clear water. A quick cleaning in the spring and again in the fall should keep your investment beautiful for years to come. In damp environments, more frequent cleaning may be required.

No high or low pH cleaning products such as bleaches should be used on Accoya, as these can damage your Accoya deck or void your warranty. Neither are metal brushes or alu-cloth to be used on Accoya. Never use a pressure washer to clean your wooden deck, as it will damage the wood surface.



ADDITIONAL SUPPORT

To access more information and installation guides and instructions, please visit our website:

touchwoodproducts.com.au

