

Accoya® is the world's leading high technology wood. It is produced from sustainably sourced, fast growing softwood using a non-toxic modification process from the surface to the core. The result is a durable, stable and beautiful material with the performance characteristics of the most durable tropical hardwoods but with industry-leading environmental credentials, providing for a minimum 50 year above ground life.

SURFACE PROFILING

The surface of Accoya decking boards can be profiled to many designs, the most common being smooth planed with either rounded (1) or splayed edges (2).

Ribbed surfaces may have rounded (3), triangular (4, 5) or square (6) grooves milled into (part of) the surface.

This kind of surface profiling is often justified by claiming it to have a higher slip resistance. However, research has shown that this kind of profiling results in reducing the contact surface and will therefore not increase the slip resistance.

Other issues to take into account when profiling the surface are:

- A deep profile (>3 mm) will reduce the board thickness to be calculated with in respect to the centre-to-centre distance of the subframe;
- Dirt and water will be collected and retained in the grooves, causing a quicker build-up of unsightly and slippery biofilm;
- A delicate surface profile and sharp edges will be sensitive to mechanical damage.

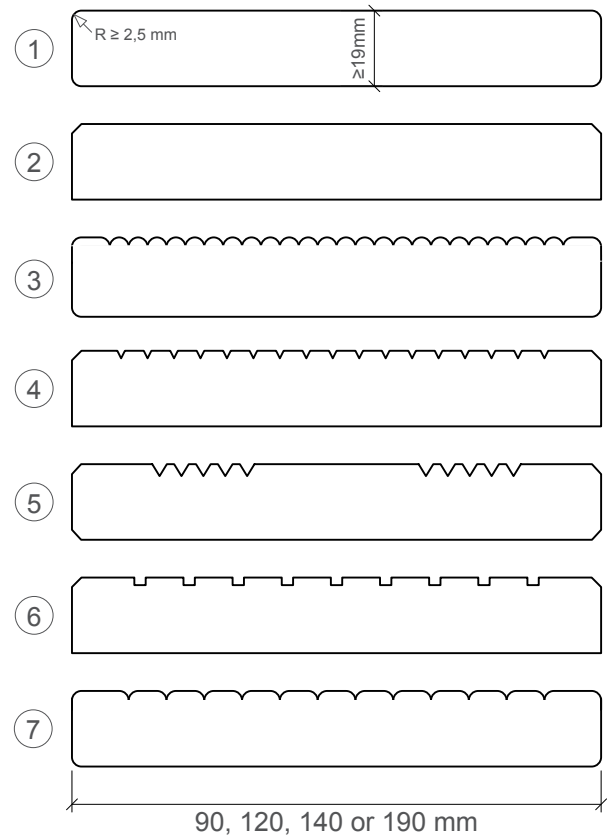
If a profiled surface is chosen for aesthetic reasons, a relatively wide rounded one and/or grooves at some distance to each other (7) is preferable.

JOINTS

Accoya decking boards need to be installed with a mutual distance of at least 1 mm. When meeting other construction elements, between the length of two boards, and when the joints are the main ventilation openings of the deck, a free space of 5-10 mm should be allowed for.

Accoya is suitable for standard decking types, and in general, the installer should follow the same recommendations for fitting as with traditional wood decking, requiring no special detailing or tools, and performs best when installed properly on a suitable frame.

Accoya wood can be cut, profiled and routed to specified designs without encountering restrictions or issues associated with the instability of traditional wood cladding while maintaining its durability.



COATING

Coatings are applied to Accoya for largely aesthetic reasons. Guaranteed levels of decay resistance and dimensional stability apply to Accoya with or without coating. When left uncoated Accoya will weather naturally.

For guidance on coating of Accoya decking boards and the natural weathering of Accoya can be found in the Wood Information Guide, available through accoya.com or contact your sales representative.

The design of the system must be in accordance with all applicable building standards and regulations. The strength of the total system - spacing, number and type of fasteners required for the occurring loads - must always be checked by a licensed engineer. To the best of the knowledge and belief of Accsys Technologies PLC the information contained in this document is in accordance with the facts 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.

SUB-FRAME

Like all decking materials, Accoya performs best when installed properly on a suitable frame and in a ventilated system, characterised by continuous ventilation beneath the decking boards. Minimum requirements are depicted opposite.

The subsurface the decking is installed on should be sufficient strong and rigid and with a slope of at least 2% (up to 5%). In case of an insulation layer beneath the deck, this material should have a sufficient high compressive strength.

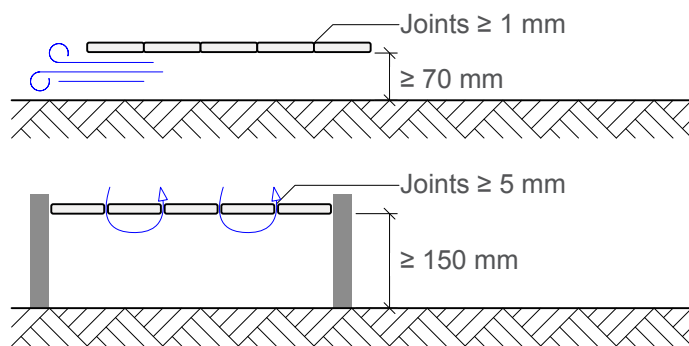
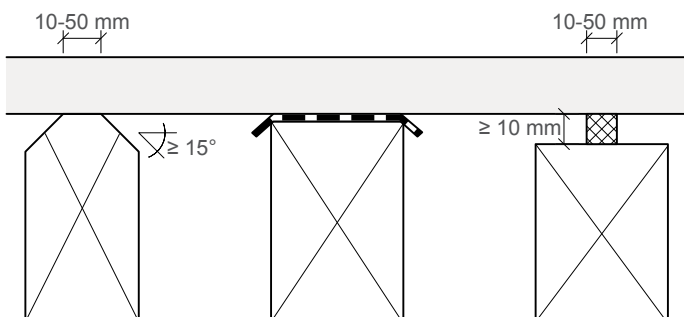
The sub-frame can be made of Accoya or timber of durability class 1 or 2. In case of a risk of leaching, apply a barrier between the sub-frame and the Accoya boards. Placing a timber sub-frame on soil without a protection against rising water should be avoided, as should direct contact between Accoya and concrete.

The sub-frame may also be made from aluminium profiles, but please note that the surface of aluminium may oxidize to a certain extent. The aluminium alloys recommended for use with Accoya are:

International Alloys AA	Werkstoff nummer	Germany Din 1712-1725
3003	3.0517	AlMn1Cu
5356	3.3555	AlMg5
6061	3.3214	AlMg1SiCu
6063	3.3206	AlMg0,7Si
6082	3.2315	AlMgSi1

Alternatively, the aluminium sub frame can be physically isolated from direct contact with the use of e.g. plastic (or stainless steel) spacers, EPDM tape and/or coating of the aluminium.

If the sub-frame battens are over 50 mm wide, it is recommended to take measures to increase the drying speed. Examples of how to achieve this, e.g. reducing the contact surface with the decking boards, are depicted below.



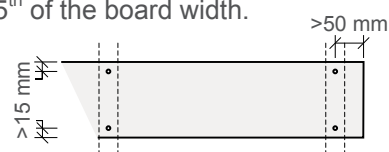
The centre-to-centre distance of a sub-frame depends highly on the board thickness the fixing system and the planned load. Wood decking for pedestrian use only and installed directly above a floor or the ground can be classified as a non-structural element, and a rule of thumb in determining the sub-frame distance 20 x the board thickness on centre.

A licenced engineer should always be involved when deviating from the rule of thumb above and/or when installed in a public area or expected higher loads.

FASTENERS

As Accoya is slightly acidic, like most durable woods, it is recommended to use A2 (general applications) or A4 (for seacoast exposures) stainless steel.

To ensure a durable and lasting fixation, the boards should be fixed with at least 50 mm clearance to the end of the board (use self-drilling screws or pre drill the hole to 1 mm less than the shank diameter). The distance to the top and bottom edge of the boards is between 15 mm and 1/5th of the board width.



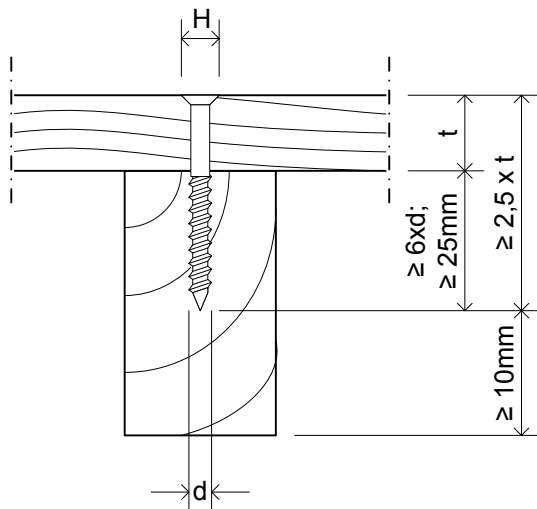
The recommended point side penetration of screws into the sub-frame is at least 25 mm, 6x shank diameter or 1,5x board thickness (whichever is the largest).

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Title	Decking		
Detail	Visible fixing		
Section	vertical	Date	08.01.2015
Scale	1:2	Version	1.0 / HWI

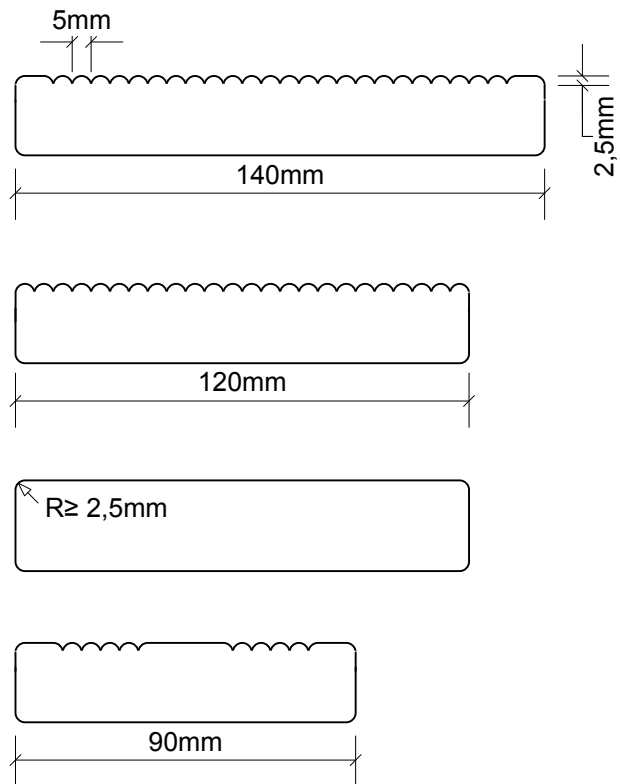
FASTENERS

- Stainless steel A2 or A4
- Dimensions:

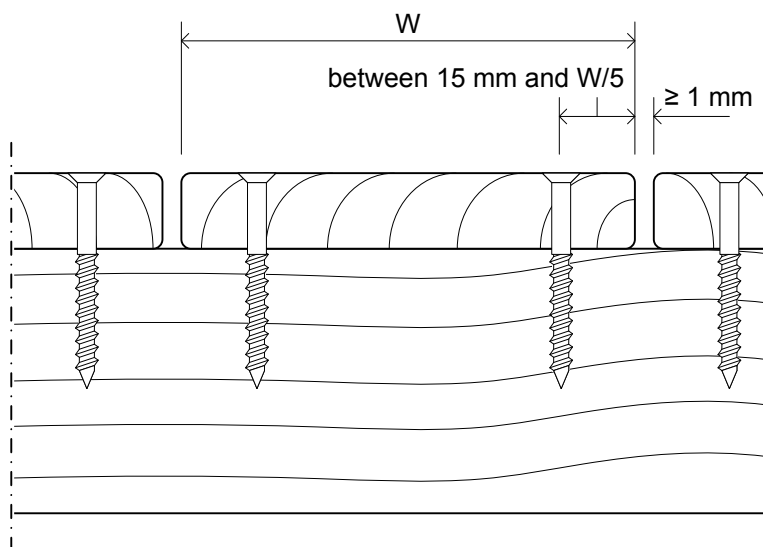


Minimum dimensions for:	H	d
Deck in normal use with sub-frame distance less than 60 cm	≥ 8 mm	≥ 5 mm
Deck in public area or with high(er) loads	≥ 10 mm	≥ 6 mm

PROFILING EXAMPLES



POSITIONING



MAXIMUM SPAN*

Thickness [mm]	Width [mm]	Span [mm]
19	120	400
19	140	460
21	120	480
21	140	550
24	90	450
24	120	600
24	140	650
28	90	590
28	120	720
28	140	750
33	90	760
33	120	840
33	140	880

* examples for normal use situations

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