



ACCOYA DECKING

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.

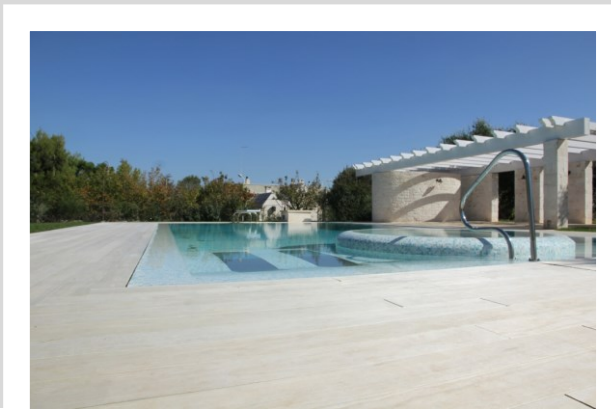
Accoya wood can be cut, profiled and routed to specified designs without encountering restrictions or issues associated with the instability of traditional wood cladding while maintaining its durability.

The general guidelines on the next pages apply for Europe. France however, has a separate certificate with specific guidelines that may deviate slightly from the general ones.

ABOUT ACCOYA®

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.

A new world of sustainable and low maintenance products including windows, doors, decking and cladding is available using Accoya. The exceptional durability provides for a minimum 50 year above ground and 25 year in-ground life.



V 12.15.3 – these guidelines have been written for professionals wishing to use Accoya to create beautiful, reliable and highly durable end products. Should you require further information or have any comments about this document, please contact Accsys through www.accoya.com.



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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).

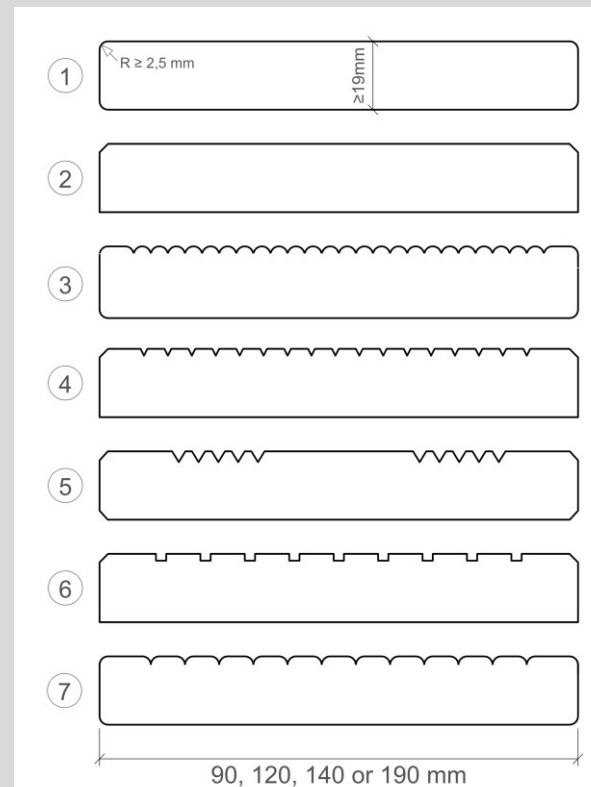
Ribbed surfaces may have rounded (3), triangular (4, 5) or square (6) grooves milled into (part of) the surface.

Ribbed 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 sub-frame
- 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.

COATING

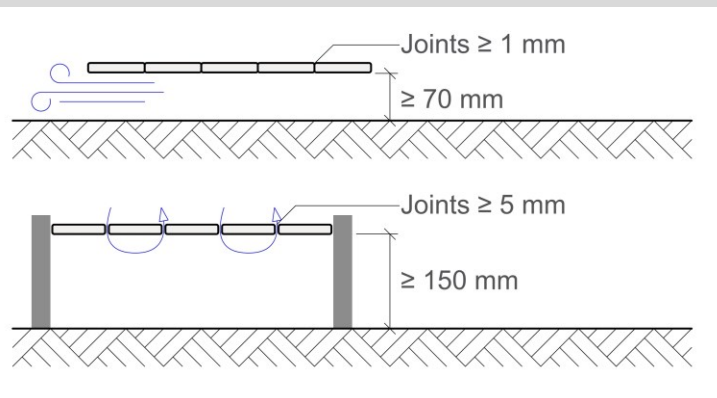
Coatings are applied to Accoya for largely aesthetic reasons. Guaranteed levels of decay resistance and dimensional stability apply to Accoya with or without coating. When left uncoated Accoya will weather naturally.

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

SUB-FRAME

VENTILATION

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 below.



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.

MATERIAL

The sub-frame can be made of Accoya or timber of durability class 1 or 2. In case of a risk of leaching (e.g. of preservative treatment), 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 note that the surface of aluminium may oxidize to a certain extent. The aluminium alloys recommended for use with Accoya are:

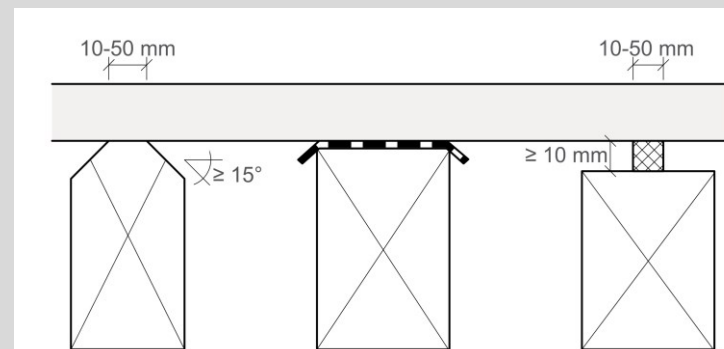
International Alloys AA	Werkstoff-nummer	Germany Din 1712-1725
3003	3.0517	AlMn1Cu
5356	3.3555	AlMg5
6061	3.3214	AlMg1SiCu
6063	3.3206	AlMg0,7Si
6082	3.2315	AlMgSi1

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.

DIMENSIONS

The dimensions of the sub-frame joists should be in accordance with all applicable building standards and codes. To insure the strength of the total system – dimensions, centre-to-centre distance, number and type of fasteners that are required for the use class loads – this should always be checked by a licensed engineer.

If the sub-frame joists are very wide (> 50 mm), it is best practice to reduce the contact surface with the decking boards, increasing the drying speed of the boards. Examples of how to achieve this are depicted below.

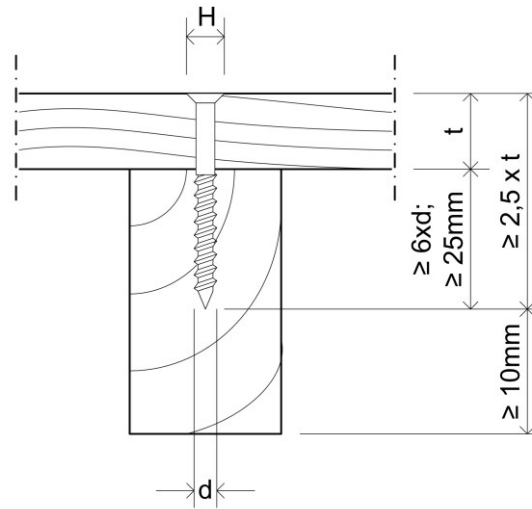
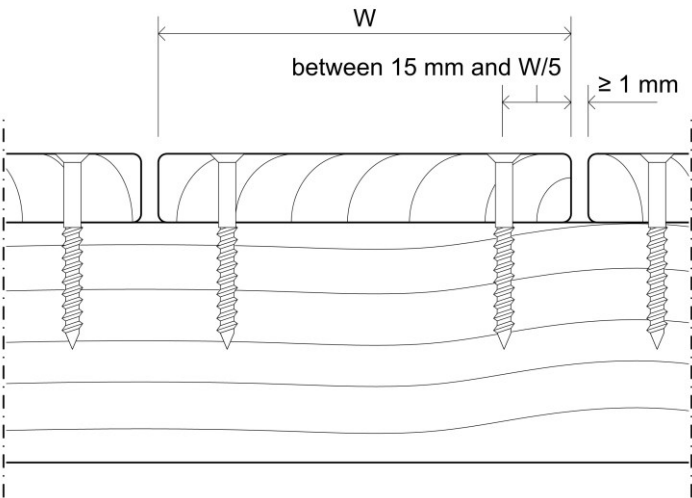


FASTENERS

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 side edges of the boards is between 15 mm and $\frac{1}{5}$ th of the board width.



The recommended point side penetration of screws into the sub-frame is at least 25 mm, 6 x shank diameter or 1.5 x board thickness (whichever is the largest).

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

FIXING DISTANCE

The centre-to-centre distance of a sub-frame depends highly on the board thickness the fixing system and the planned load (use case). 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 licensed 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.