

HARDWARE

Essential guide

IMPORTANT

All types of wood contain organic acids in varying amounts depending on the species.

Accoya has a similar level to oak and western cedar, which, in humid conditions, can accelerate water-induced corrosion of metals.

When stainless steel is mentioned in this guide, the minimum grade should be A2/304.

In saline and harsh environments, it is recommended to use A4/316.

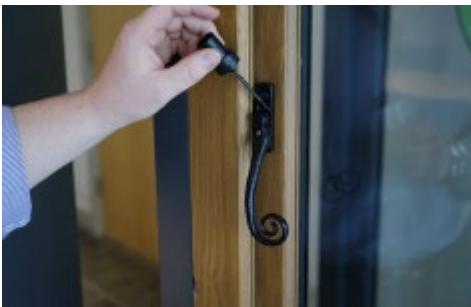
FIXINGS

Glazing pins used on both sides of external doors and windows should be made from stainless steel or brass. This also applies to pins used for bolection beads around panels and to other mouldings such as tongue and groove boards.

In general, any screws or bolts exposed to moisture should be manufactured from corrosion-resistant materials, in particular:

- stainless steel,
- high-quality brass.

This includes fixings used for hinges, locks, door handles and other door furniture. Where coloured screws are not available to match the furniture finish, it is recommended to use stainless steel screws and paint the heads after installation.



Screws and fixings used in dry internal environments do not necessarily need to be stainless steel or brass. Suitable alternatives include:

- zinc-coated fixings,
- passivated fixings or those with a similar protective coating.

Through-handle bolts should ideally be stainless steel. Where this is not possible, applying a coating of PTFE, lithium grease or similar will provide a degree of water repellency. The same recommendation applies to handle spindles.

Stainless steel screws are preferred for window frame assembly, although this is not essential, as these fixings are unlikely to be exposed to moisture in a well-designed and properly installed window. Where stainless steel is not used, screws should be countersunk and filled.

For window and door installation, stainless steel screws are recommended. Coated fixings may be used as an alternative, provided they are adequately protected from moisture by correct installation. Screw heads should always be countersunk and filled.

For decking applications, stainless steel decking screws are strongly recommended. Proprietary coated decking screws may be used as a lower-performance alternative; however, depending on quality, they may be prone to corrosion. All fixings used for cladding must be stainless steel.

HINGES

Butt hinges and other hinge types used for windows and doors should be manufactured from stainless steel or brass, both of which are available in a wide range of finishes and colours.

Gate hinges, such as hook and band or “T” hinges, should ideally be stainless steel. Where galvanised mild steel is used, it is essential to create an isolation barrier between the hinge and the wood. This can be achieved by:

- incorporating a DPC (Damp Proof Course) membrane,
- or coating the back of the hinge or associated furniture with epoxy resin.

LOCKS

While stainless steel is preferred, the industry standard is for locks, window espagnolette bolts and door multi-point locking systems to be manufactured primarily from zinc-coated mild steel. Some products may include brass or stainless steel faceplates.

Even when using stainless steel or corrosion-resistant locks, or locks with a TRICOAT® (or equivalent) finish, additional precautions are required. All measures are based on creating an effective barrier between the metal components and the wood:

- all cut-outs, including lock housings, spindle and cylinder cut-outs, should be fully end-grain sealed;
- ideally, the full length of the euro-groove for espagnolette and shoot bolts should be end-grain sealed and prepared for paint application;
- all machined edges of doors and sashes should be fully painted, with as much coating applied behind the lock as on the visible face.

Additional protection may be achieved by spraying the lock and mechanism with PTFE or lithium grease. Proprietary protection systems, such as CoastGard™ or equivalent, may also be used. Some manufacturers offer lock gearbox protection sleeves to help protect the lock case from moisture ingress.



EXTERNAL DOOR FURNITURE

Stainless steel and brass clearly offer superior performance in damp or exposed conditions. Where door furniture made

from other metals is used (such as handles, letter plates, door knockers, push plates or number plates), the door should be fully painted, as the coating acts as an isolation barrier between the metal and the wood.

Further protection can be achieved by spraying the inside of the handle faceplate with PTFE or lithium grease. The inside of letter plate cut-outs should be end-grain sealed prior to painting.

Aluminium components, which are inherently corrosion resistant, such as threshold strips and bi-fold door track systems, may be used without restriction.



Lead flashing

Wood, including Accoya, may have a corrosive effect on lead. It is therefore advisable to isolate lead flashing from the wood by creating a barrier using epoxy resin, paint or a suitable lead underlay. For additional protection, the application of patination oil is recommended.

WINDOW FURNITURE

Most window furniture, including stays, handles, fitch fasteners, finger pulls and restrictors, is manufactured from a variety of metals. These products are generally suitable for use, as the interior of a building is considered a low-risk environment in terms of excessive moisture exposure.



However, consideration should be given when supplying products for new-build or refurbishment projects, as window furniture components may temporarily tarnish due to moisture generated by wet trades.

To minimise this risk, it is advisable to:

- keep windows slightly ajar where possible,
- ensure the building is well ventilated during the construction phase to reduce moisture levels.

MORE INFORMATION

You can find more information about Accoya on our website: www.accoya.com

Other useful documents are available in the 'Downloads' section of our website, such as:

- Wood Information Guide
- Essential Coatings Guide (Joinery)
- Care guide