

SOFTWOOD CLADDING FIXING GUIDELINES

SOFTWOOD CLADDING FIXING INSTRUCTIONS



The guidelines below relate to most types of profiled softwood timber cladding manufactured by Metsä Wood UK. More detailed instructions can be obtained from TRADA or The Timber Decking and Cladding Association.

GENERAL INFORMATION

All timber cladding and battens should be appropriately treated to protect them against rot and insect attack.

Timber cladding can provide a cost effective and attractive external envelope to a building but the design and fixing detail needs to accommodate the fact that timber is a natural material and will move in accordance with changing moisture content and the humidity of the environment.

A timber rain-screen can allow moisture through joints and in such an installation an appropriate breather membrane is recommended to prevent moisture ingress into the structure of the wall.

The design details should include a cavity of at least 21mm directly behind the cladding in order to provide adequate drainage and ventilation. This will ensure any moisture which does collect at the back of the boards can be dispersed.

External softwood timber cladding should be at a moisture content of approximately 16% at the time of fixing when it will be in approximate equilibrium with the average atmospheric conditions found in the UK.

An appropriate surface coating applied in accordance with the manufacturers guidelines will help protect timber cladding from UV degradation, moisture uptake and the risk of any surface growth of algae.

Vertical cladding will require double battening (vertical and horizontal) to ensure airflow to the cavity.

BEFORE FIXING

If timber cladding is to be coated with paint or stain, at least one coat, preferably two, should be applied to all sides and ends of the boards before fixing. A second or third coat can be applied after the boards are fixed.

Any cut ends of boards or drill holes should be protected with a suitable wood preserver.

If the boards are not being coated it is still recommended that the end grain is protected to prevent moisture uptake. Unprotected end grain will readily absorb moisture which can lead to swelling and discolouration.

Battens should be at least twice the thickness of the cladding boards.

Nails should be annular ring shank stainless steel to prevent staining and provide sufficient holding power. The nail length should be at least 3 times the thickness of the board.

FIXING INSTRUCTIONS

EXAMPLES:

Horizontal cladding fixed to vertical batten (Fig.1) and vertical cladding fitted onto double battening (Fig. 2). For both timber frame and masonry walls the same batten and cladding configuration is used.

Battens should be approximately twice the thickness of the board. Eg. for a 20mm finished cladding, a minimum 38mm thick batten should be used

It is recommended that softwood battens should be pre-treated in accordance with BS8417 for a BSEN335:1 Use Class 3 application.

Battens should be set at a maximum 600mm centres for vertical and horizontal cladding. 400mm centres should be used if boards are being fitted in a diagonal layout.

Insect mesh should be fitted to all cavity openings.

A clear ventilation gap of at least 21mm should be incorporated into the design to permit air circulation and unrestricted drainage of any rainwater that penetrates the cladding.

Where horizontal cladding boards are butted together additional end support should be provided by fixing a second batten which extends at least the width of one board above and below the board being fixed.

Butt jointed boards should be fitted with a 5mm gap to allow airflow.

Ventilation gaps of at least 16mm should be provided at the top and bottom of the cavity.

Horizontal cladding should be cut to ensure a minimum 8mm gap before vertical members of windows, doors, corner trims or similar. This allows airflow to the end of the boards which aids drying and helps prevent excessive moisture uptake.

Fix with nails at least 20mm from the end of boards and at least 15mm from the edges. Pre-drilling should be carried out if it is necessary to fix closer to the end or edge of the boards.

It is recommended that all cladding boards should be double nailed at each batten and through the thickest part of the board preferably at quarter points from the edge as (Fig.3).

When fitting T&G boards retain a 2mm gap in the joint to allow for any swelling which may occur.

Secret fixing through the tongue or groove of standard profiled boards is not recommended as this can split the timber and reduce the holding effect of the nail.

Nail heads should be fitted flush with the surface of the boards.

TIMBER CLADDING IN SERVICE

Timber cladding is a natural product which is hygroscopic and will swell and shrink in relation to the air humidity and the moisture content of the wood.

This timber movement is expected and is accommodated for in the design of the timber profile and cladding system.

Movement of up to 3-4 mm per board can be expected when atmospheric conditions change and the moisture content of the boards increase or decrease from the 16% norm.

Regular maintenance by way of cleaning and removal of any surface algae growth, sanding and re-coating when necessary, together with the replacement of any damaged boards will enhance the service life of timber cladding and help maintain an attractive appearance.

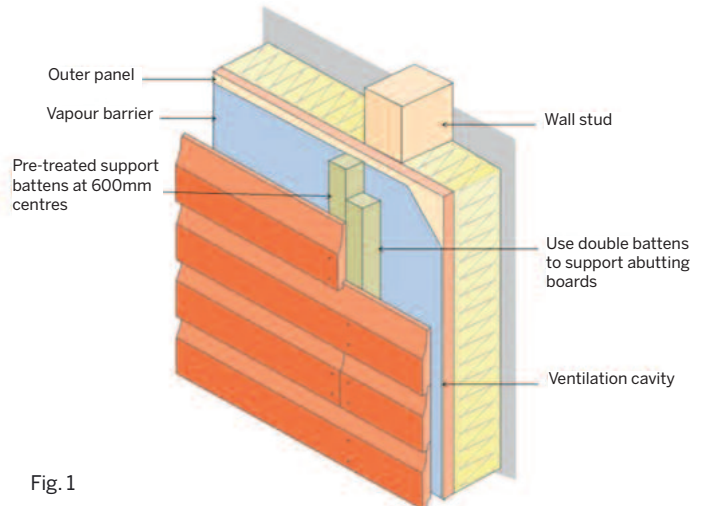


Fig. 1

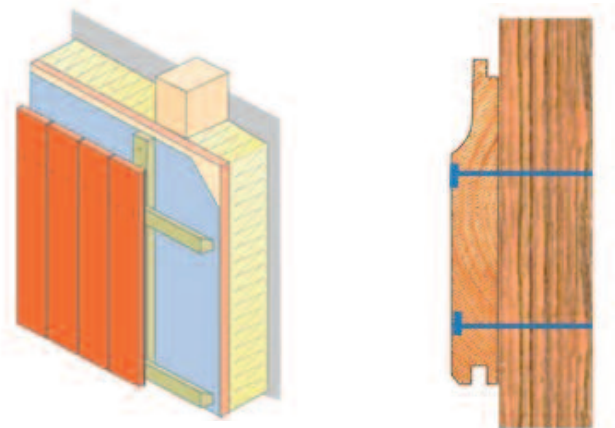


Fig. 2

Fig. 3