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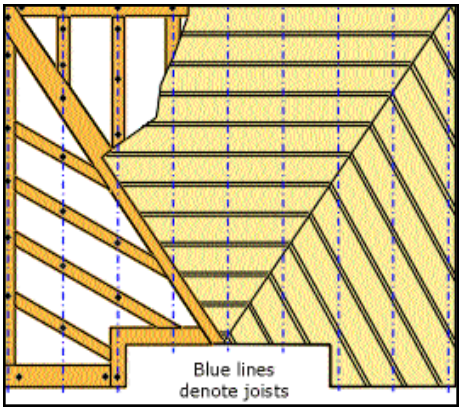
HOW TO: Fix tongue-and-groove cladding

Introduction



In this 'How to' you'll learn about fixing tongue-and-groove cladding to your walls or ceiling. You'll find guidance on attaching battens, and on preparing and finishing the cladding. You'll also find helpful tips for dealing with corners and electrical fittings.

What you'll need

Materials

Abrasive paper

Abrasives for sanding machine

Battens – treated, sawn timber to support the cladding

- for fixing over plaster: 22mm x 50mm timber
- for fixing to brick or blockwork: 38mm x 50mm timber

Blu-tack

Cladding clips and pins

Finishing materials: varnish, woodstains, wood dyes or paint

Hammer fixings

- for fixing to brick or blockwork: 20mm longer than the timber thickness
- for fixing over plaster: 20mm longer than the thickness of the battens plus the plaster

Mouldings for completing at dado or ceiling level

Offcuts of hardboard or plywood for packing

Panel adhesive

Panel pins – 25mm, 32mm, 38mm

Skirting board to suit cladding

Tongue-and-grooved cladding

Tools & equipment

Adjustable bevel and protractor

Bolster chisel

Bradawl

Brushes for applying finishes

Claw hammer – 16oz or 20oz

Club hammer

Combination try square

Coping saw or jigsaw

Cork sanding block

Drill bits – masonry, HSS twist bits, flat bits for larger holes

Dustsheets

Electric drill with hammer facility

Frame gun for panel adhesive

Hand mitre saw or electric cut-off saw

Hard-point handsaw or electric jigsaw

Large nail punch

Craft knife

Pencil

Pin hammer

Pin punch

Random orbit or orbital sander

No. 4 Smoothing plane

Spirit levels – 300mm and 1200mm

Steel measuring tape

Steel rule – 300mm

Two stepladders for working on walls over 1.5m high

Trestles and scaffold boards (which may be hired) for working on ceilings

Wrecking bar or pry-bar

About timber cladding

There are five profiles available in various thickness and lengths. All rely on the principal of tongue-and-groove joints usually with a chamfer on the edges called the 'V'. The system is usually referred to as TG and V.

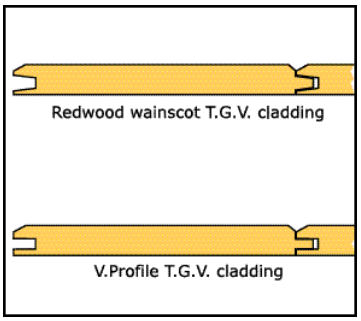


fig. 1

What you'll need (cont.)

- Redwood Wainscote TGV cladding **(fig. 1)**

  Specifically for cladding a room up to waist or dado height

  7.5mm thick

  Coverage: 87.5mm

  Length: 900mm

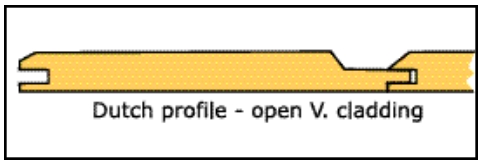


fig. 2

- V Profile TGV cladding **(fig. 1)**

  Similar to Wainscote but thicker

  9mm thick

  Coverage: 88mm

  Lengths: 1.8m and 2.4m

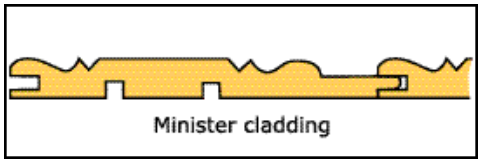


fig. 3

- Value Basics TGV cladding

  Similar in profile to Redwood Wainscote

  7.5mm thick

  Coverage: 90.5mm

  Lengths: 1.8m and 2.4m

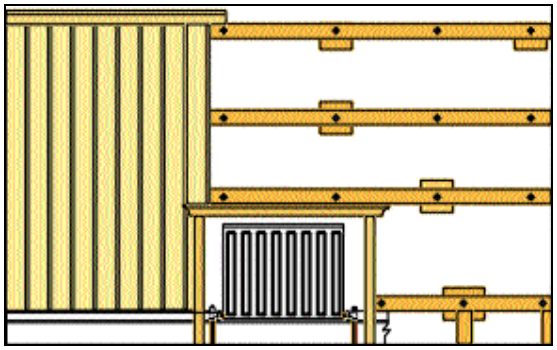


fig. 4

- Dutch Profile **(fig. 2)**

  Profile is the same as an open 'V' profile

  9mm thick

  Coverage: 88.5mm

  Lengths: 1.8m and 2.4m

- Minster **(fig. 3)**

  A more ornate, Victorian style

  9mm thick

  Coverage: 89mm

  Lengths: 1.8m and 2.4m

> **Hint**
> Fix Dutch and Minster profile boards using clips and pins. **(fig. 14)**

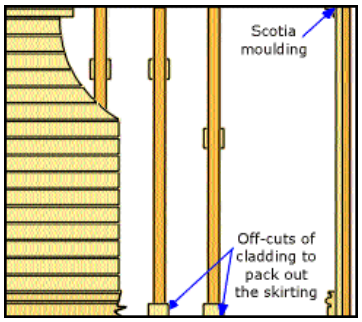


fig. 5

Before you begin

Clear room

Clear as much furniture as possible from the room. Remove or roll back the carpet and cover everything with dustsheets.

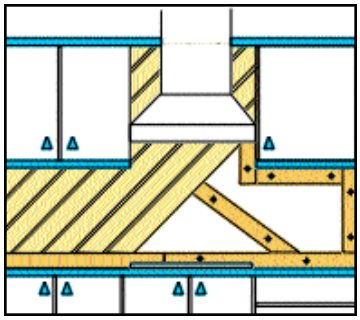


fig. 6

Acclimatise timber

Store your timber and cladding, unwrapped and lying flat on its side, for at least two weeks in the room where you intend to use it. This allows the timber to acclimatise and shrink before it's fixed.

Prepare surfaces

Carefully remove skirting board, dado rails and, if necessary, picture rails and coving from the wall.

Isolate the electrical circuits at the consumer unit, then remove any power sockets, light switches, wall lamps, etc that might interfere with the work. Make the wiring safe, use connector blocks and insulating tape, and turn on the electricity.

> ⚠ Safety tip
> If you have the slightest doubt about working with electricity, call in a qualified electrician.

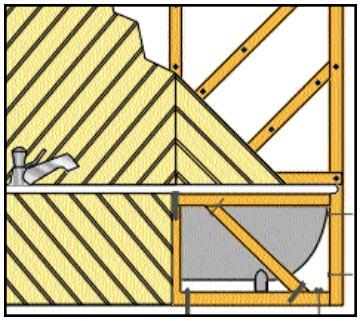


fig. 7

Remove plaster

If the plaster is crumbly, falling off, or sounds hollow when tapped with a light hammer, remove it completely with a bolster chisel and club hammer. Wire brush the wall and hack off any obvious high spots in the brick or blockwork.

Adjust plumbing

If you need to re-route any plumbing, do this before starting to fix any battens. You may need to adjust supply pipes to radiators forward by the thickness of the battens and cladding. As an alternative, you could box round the radiator and make a shelf above **(fig. 4)**.

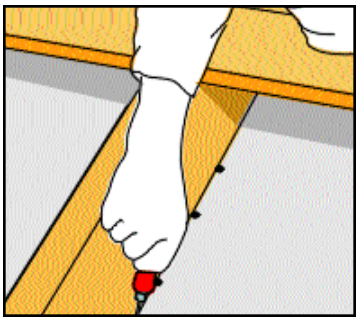


fig. 8

Fixing battens

Wall cladding can be fixed to battens vertically **(fig. 4)**, horizontally **(fig. 5)**, diagonally **(fig. 6)** or in a zigzag **(fig. 7)**.

Attaching battens

Attach battens to the wall or ceiling at 90° to the cladding planks, usually at 400mm centres **(*see* figs. 4, 5, 6, 7, 10)**. Make sure the battens are in the same plane, and pack out where necessary **(figs. 4, 5)**.

For fixing battens to a sound plastered wall, use 22mm x 50mm sawn, treated timber. Use fixings 20mm longer than the combined thickness of the battens and plaster. To fix battens to brick or blockwork, use 38mm x 50mm sawn, treated timber and fixings of at least 60mm long. To ensure the battens are in the same plane, use hardboard or plywood to pack out as necessary.

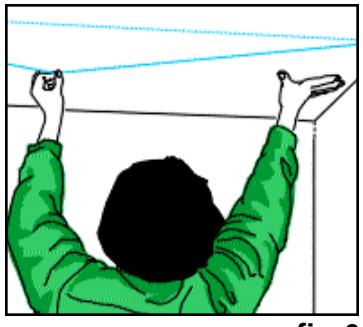


fig. 9

Before you begin (cont.)

Hanging heavy objects

Decide the position of heavy objects such as radiators or hand basins. Attach wider battens to the wall and hang the object from these.

Supporting skirtings

If the battens run horizontally, position the lowest just above the level of the skirting. Attach short, vertical battens below this at 400mm centres. Fix offcuts of cladding to the battens to support the skirting board **(fig. 4, 5)**.

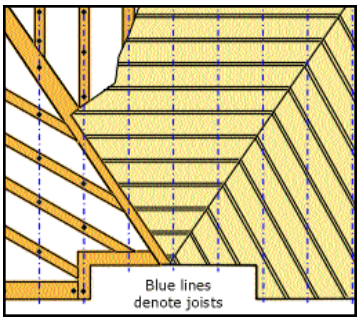


fig. 10

Fixing battens to a ceiling

Mark joists

Locate the joists and mark the positions on the ceiling.

For ceilings below a loft, go into the loft space and push a bradawl through the ceiling adjacent to each joist **(fig. 8)**.

If there's no loft above, you may need to lift the floorboards carefully in the room above the ceiling. Alternatively, poke a bradawl up through the ceiling until you find a joist. In old houses the joists are usually at either 356 or 407mm centres. In new houses the spacing depends on the flooring that the joists support. Square edge boards have 400mm centres. Tongue and groove boards, including 18mm T&G chipboard, have 450mm centres. 22mm tongue and groove chipboard flooring has 600mm centres.

Use a chalk line to mark the position of the joists across the ceiling **(fig. 9)**.


fig. 11

Fix battens

Fix battens to the ceiling using 4.7mm (No.8) chipboard screws, 25mm longer than the combined thickness of the ceiling and batten.

Figure 10 shows an attractive ceiling layout, indicating 22mm x 50mm battens and joists. The diagonal battens are 22mm x 75mm.

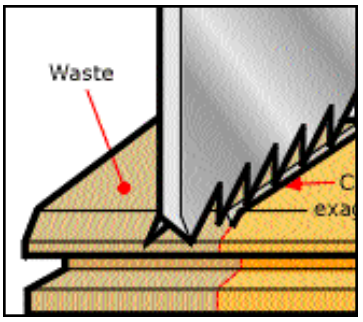


fig. 12

Preparing the cladding

Sand down

Before cutting the cladding and after it has acclimatised, lightly sand down the outward facing surface and chamfers. Use either a random orbit or orbital sander with 120 grit abrasive.

After sanding, vacuum off any dust and wipe over with a clean, lint-free cloth dampened with white spirit. If you intend to use a water-based finish, dampen the cloth with water.

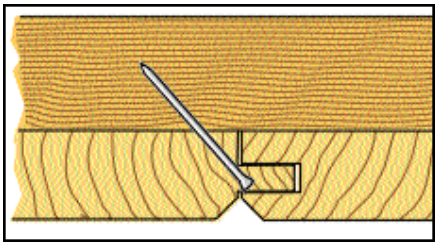


fig. 13

Preparing the cladding (cont.)

Apply finish

Apply two coats of your chosen finish to the front and back of the boards. Lightly rub down the front surfaces after each coat. This process will help stabilise the boards. Try not to coat the inside of the groove or the back of the tongue.

Apply the final coats, to the front surface only, after you've cut and fixed the boards.

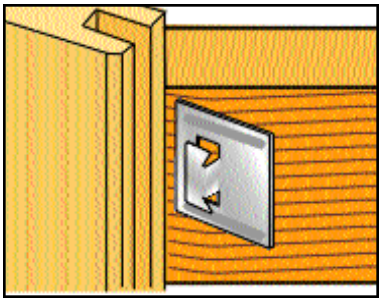


fig. 14

Marking and cutting

Use a craft knife to score a cutting line 10mm from one end of board **(fig. 11)**. Mark angles of 45° with the combination square. For other angles, use the adjustable bevel together with a protractor.

Saw off the end, cutting to waste **(fig. 12)**. Use the same technique to mark and cut the boards to length. Remove any splinters with a cork block and fine abrasive paper.

If boards have to be joined end on, position the joint over a batten and stagger the joints across the rows.

Fixing cladding

Secret nailing

With secret nailing, panel pins are driven at an angle through the tongue **(fig. 13)**. Use a pin hammer to knock in the pin, then a fine pin punch to drive home the last 5mm, until the pin is just below the surface of the timber.

> Hint
> To stop the tongue splitting, pre-drill the panel pin holes using a 1mm drill.

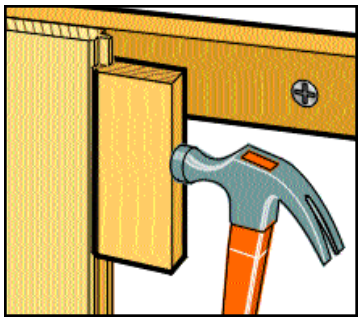


fig. 15

Metal clips

The clips fit into the groove of the board, leaving a small tongue through which a pin is driven into the batten **(fig. 14)**. Plane the tongue off the first board to be fixed and place that edge against the left-hand wall or ceiling. The next board in place hides the clips.

Fixing vertically

Place the first board against the left-hand wall, using a spirit level to ensure the board is vertical. Drive pins just clear of the groove, through the board into the batten. Then drive pins through the tongue, one per batten.

Place the next board in position. Use an offcut of board 50mm wide, cut off the groove side, to protect the tongue of the new board while you ease it into place with gentle hammer taps **(fig. 15)**. Fix with pins through the tongue.

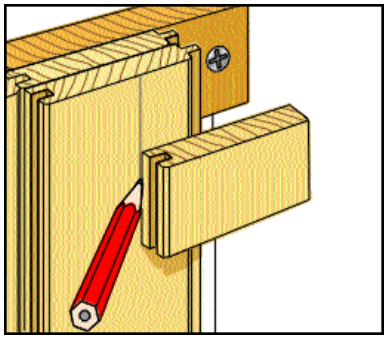


fig. 16

Fixing cladding (cont.)

Backmarking or scribing the last board

Carry on until the last board. Use Blu-tack or masking tape to fix the last board over the penultimate board. Remove the tongue from an offcut of board then slide the tongueless board down the wall, marking the final board with a pencil **(fig.16)**.

Dealing with corners

External corners

Vertical panels

Lap one board over the other, having chamfered one edge **(fig. 17a)**. Or mitre the edges with a plane and butt them together **(fig. 17b**).

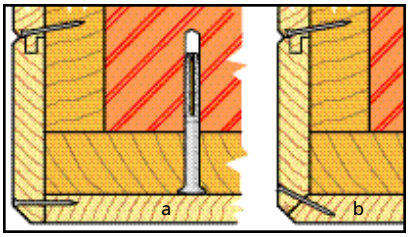


fig. 17

Horizontal panels

Let the panels meet corner to corner, then pin on a bevelled moulding to conceal the end grain **(fig. 18a)**.

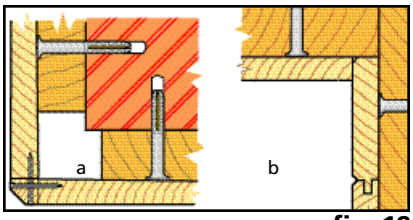


fig. 18

Internal corners

Scribe and cut the edge off the butting board to ensure a good fit. Check that the board is vertical, then pin through the tongue and face **(fig. 18b)**.

Dealing with electrical fittings

Flush fittings

Isolate the relevant circuits at the consumer board. Remove any plaster surrounding the wall boxes, enough to reveal 150–200mm of cable. Unscrew the box and bring it forward, packing it out sufficiently to bring the front of the box level with the proposed surface of the cladding. Refix the box and fix battens around it **(fig. 19)**.

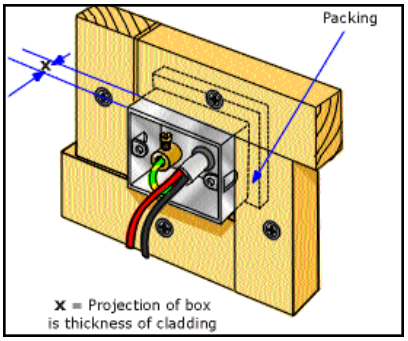


fig. 19

Surface mounted boxes

Remove the box, cut away the plaster and brickwork to leave 40mm between the face of the cladding and the brickwork. Fit battens to support the cladding and use a dry lining box to turn the surface mounted box into a flush fitting **(fig. 20)**. Alternatively, batten round the box and clad up to and round it.

Finishing

Fit skirtings and any other mouldings, which should be pre-finished in the same way as the cladding. Fix in place using panel adhesive.

Carefully fill any pin holes with a wood filler matching the colour of the wood. Don't spread the filler around too much. When the filler is dry, lightly rub it down.

Finally, apply one or two more coats of finish.

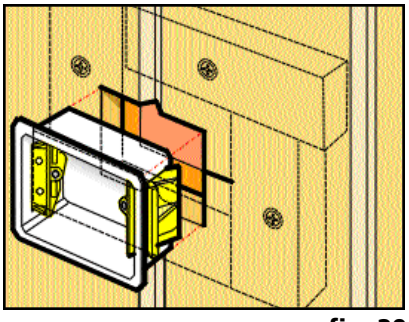


fig. 20

> Hint
> If you're cladding a kitchen or bathroom, use exterior grade paint or varnish. HB