PLASTERBOARD CUTTING & FIXING 15

Before purchasing tools, timber and materials, read every step thoroughly then talk to one of our experts

Plasterboard is the most widely used wall and ceiling lining material in Australia. It is composed of a gypsum core encased in a heavy-duty linerboard which is folded around the long edges to reinforce and protect the core. For domestic use, long edges are recessed to assist in producing a smooth, even and continuous surface once jointed.

Generally in 1200mm and 1350mm widths, plasterboard is available in a variety of lengths from 2400mm up to 6000mm, in 10mm and 13mm thicknesses, although there are some 'special application' products that are 6.5mm, 16mm and 25mm thick.

As well as plasterboard for general applications there are also boards specifically manufactured for water resistance, fire resistance, acoustic resistance, flexibility and long span applications.

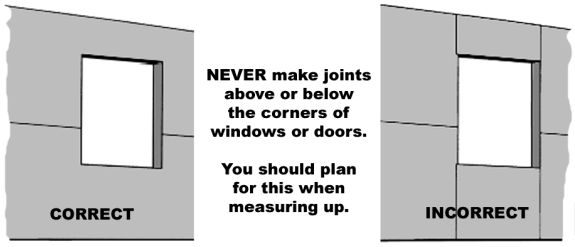
It is advisable to confer with your local building authority before beginning any major plasterboard projects.

Step 1: Measuring Up

First, you must measure and calculate all the surfaces to be covered.

Be aware that plasterboard should ideally be fixed horizontally, this ensures that any joints are below eye-level and as a result any imperfections are more difficult to see. With this in mind, calculate to use sheets that are the full length of the room, if possible, so that no 'end' joints are formed and if 'end' joints are unavoidable then these should be staggered.

NEVER make joints above or below the corners of windows or doors.



Step 2: Preparation

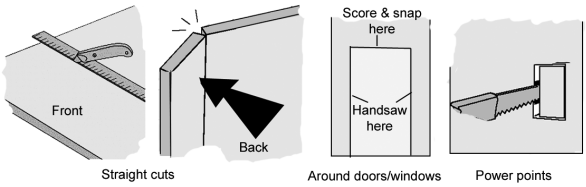
Preparation is the key to achieving a good finish. You should ensure that the surface is as flat and straight as possible before applying plasterboards.

- Remove any nails, old glue or other fixings that are protruding from the timber frame.
- Use a long straight edge to check the flatness of the wall. There should be no deviations in the framing greater than 2-3 mm from the straight edge. Plane any high areas flat or straighten any misaligned studs or noggins.
- When fixing plasterboard vertically, all joints should be made over timber, so plan where your joints will be.
- Stud spacing should be at a maximum of 600 mm, so add any additional studs that may be required.
- Make sure all power point brackets, etc. are in place.

Step 3: Cutting Plasterboard

Measure and mark the plasterboard and cut to size as you go.

For straight cuts, mark where you want the cut to be made and then draw a stanley knife across the white side of the board, cutting firmly. Place the board on its side and give the opposite side of your cut a quick push. The board will bend at the cut and break through the gypsum core. It is then a simple matter of slicing down the grey, cardboard side of the board to finish the cut.



Use a handsaw and the score and snap method for cuts where openings, such as windows and doors, are needed.

To make openings for electrical wiring, plumbing, etc, measure out, mark the location of the penetration on the sheet, and cut a the hole using a keyhole saw.

Step 4: Positioning and Fixing

When positioning plasterboard, especially on ceilings, a helper makes the job very much easier, for large jobs you might consider hiring a sheet lifter.

Stud adhesive is used in conjunction with nails or screws to fix plasterboard sheets to the frame members. For walls, adhesive is used to fix the areas in the centre of the sheet that come into contact with a stud or nogging, while screws/nails are used around the perimeter of the sheet. For ceilings the same principal applies, however, additional screws/nails are required down the centre of the sheet. General sizes for screws are 30mm for 10mm sheets and 40mm for 30mm sheets. Nails should be 30mm ring shanked.

Begin by using a 38mm broad knife, to place 'blobs' of stud adhesive about 25mm diameter and 15mm high on the studs at 300mm maximum spacings. Begin at least 200mm from where the edge of the sheet will go and do not place glue in areas where the perimeter of the sheet will be located. Adhesive should not be placed where fasteners will be driven (except for temporary fasteners).

For walls, put up plasterboard panels horizontally or vertically, whichever results in the least number of seams.

Begin a horizontal installation at the ceiling. Lightly mark stud locations on the ceiling and floor for future reference and then partially drive nails into the studs the width of the sheet below the ceiling line. Next, with a helper, lift a panel into place on top of these temporary supports and begin driving fasteners 10 to 16mm from the sheet edges, fix one recessed edge at each stud. Press the sheet firmly against the studs and fix along the opposite edge. Where two sheets butt together (this should be at the centre of a stud), fasten at 150mm centres. Fasten every 300mm in corners and around all doors, windows and other openings.

Drive fasteners in straight, not on an angle, so that their heads dimple the surface but do not break through the paper facing. Later the dimples will be filled. Drive nails in. If damage does occur, drive a second nail approximately 50 mm from the first. Then drive the first nail until it is just below the surface of the board using a nail punch.

When fixing the bottommost sheets set them 10 mm above the floor.

To temporarily hold sheets firmly while adhesive dries (24-48 hours) drive nails/screws through small plasterboard off-cuts into every second stud about midway up the sheet.

For ceilings, apply stud adhesive at 230mm maximum centres and ensure all adhesive is at least 200mm from any fastening point. Position each sheet at right angles to the ceiling joists and fasten one recessed edge at every joist, press the sheet firmly against the framing and fix the opposite edge to every joist. Double nail (75mm apart) or single screw the sheets to each joist at the centre line of each sheet.

Back Blocking

Back blocking is a reinforcing system designed to minimise the cracking of joints which can occur from a combination of weather conditions and/or building stresses and is generally used where butt or ‘end’ jointing of sheets occur between framing members and to recessed joints where a high standard of finish is required. It is generally recommended for ceilings .

Back blocks are made from the plasterboard you a using and are cut at least 200 mm wide and long enough to fit loosely between the ceiling joists. Cornice cement is applied over the entire surface of the block at right angles to the joint using a notched spreader that will form 6mm x 6mm beads at 20mm centres approximately.

The back-blocks are then placed centrally along the full length of the sheet joint. Immediately after the blocks are in place install the next sheet. If you have access to the ceiling cavity back-blocks may be cemented into position from above the ceiling after the boards have been fixed and before they are flush jointed.

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- Do not try to force a panel into a too-tight space; you will crumble its edges. Cut off a bit for an easy fit.
- Do not cut or sand plasterboard with power tools. You'll raise dust that is harmful to your lungs and presents a big clean-up problem.
- If you are installing plasterboard on the ceiling of a room as well as the walls, put up the ceiling panels first.

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