



Fixing GIB® Plasterboard



This guide gives instructions for the installation of GIB® Standard plasterboard. For installation details on other GIB® performance plasterboards, please contact GIB® Helpline on 0800 100 442.

Introduction

GIB Living Solutions® represents a holistic approach to interiors by taking into account other issues such as ventilation, heating and noise control to create a living environment that is quiet, more comfortable and healthier, as well as more durable and easy to maintain.

A range of different GIB® plasterboards are produced, each with different properties, that help solve common household issues.

Table 1 - Zone Selector

GIB Dry Zone®		Fire Rated GIB Aqualine®
Superior protection from steam and moisture	Bathroom, ensuite, toilet, kitchen and laundry	Contains special wax polymers to help prevent water absorption
Ref: For fixing details - GIB Aqualine® Wet Area Systems brochure		
GIB Quiet Zone®		GIB Noiseline®
Using two layers helps reduce the noise entering rooms through walls and ceilings	Bedrooms, Study and TV room	Stronger, higher density and more rigid core. Much tougher than GIB® Standard plasterboard.
Ref: For fixing details - GIB Noise Control® Systems brochure		
GIB Toughzone®		GIB Toughline®
Improved durability and greater resistance to damage	Stairway, hall, rumpus room, garage and children's bedrooms	Much tougher than GIB® Standard due to high density core and a fibreglass mesh
GIB Feature Zone®		GIB Ultraline®
Superior, smoother looking ceilings and walls	Ceilings and walls in feature areas such as lounge and dining areas	Finer, smoother, resin coated face paper.
GIB Fireguard Zone®		GIB Fyreline®
Added protection expensive assets in the home	Kitchens, other at risk areas	High density core for up to 4 hours extra protection in the event of fire.
Ref: For fixing details - GIB® Fire Rated Systems brochure		

Many of these can be combined in the same area or room, for more information about this contact GIB® Helpline on 0800 100 442.

This leaflet has been designed to give you some useful pointers and the basics of some of the common situations that will be faced when fixing GIB® plasterboard (for both new work and fixing to old framing).

Tip: "You cannot make a silk purse out of a sows ear." Poor fixing of GIB® plasterboard will make achieving a good finish difficult. Stopping can hide small mistakes but even a great stopping job can not make poor fixing look good. Consider using the services of an experienced plasterboard installer and stopper where a good finish is important.

Tools

Some or all of the following tools will be required depending on the actual work being carried out.

- Pencil
- Tape
- 1800 mm Straight Edge
- Drywall/Craft Knife
- Hammer
- Keyhole Saw
- Nail Punch
- Flat Crowbar, or similar, for lifting sheets 10 mm from floor when fixing
- Electric Drywall Screwgun or Cordless Drill with Clutch
- Adhesive Gun
- Plane, for planing framing smooth
- Saw

Fixing GIB® plasterboard using screws and glue is the best practise method. It is, however, important that screws are not overdriven and as such an electric drywall screwgun is the best tool to use. If this is not available an electric drill with a clutch can be used.

Tip: If using a cordless drill with clutch for fixing, take some time to adjust the clutch so that the screws do not cut through the surface of the paper. Practise on some off-cuts and timber or in an area that will be out of normal view. Remember that old timber will be much harder than newly installed timber, so be careful when working in areas with both.

Materials

GIB® Plasterboard

Generally, there will be approximately 15% wastage of GIB® plasterboard. Order approximately 115 sq m of GIB® plasterboard for each 100 sq m of wall.

Walls

For basic performance 10 mm GIB® plasterboard should be used on walls. Improved performance can be achieved by using 13 mm GIB® plasterboard or one of the performance boards given in Table 1, however, the fixing details may be different (refer to the relevant GIB® systems book).

Tip: 10 mm GIB® plasterboard is available in a range of lengths up to 6000 mm, and if fixing horizontally, square edge/taper edge board should be used ensuring that the tapered edges meet and that the square edges are placed at the floor and ceiling. For 2.7 m studs GIB® Wideline which is 1350 mm wide can be used for fixing horizontally.

Ceilings

In ceilings 13 mm GIB® plasterboard should be used. The thicker GIB® plasterboard should be fixed with battens at 600 mm centres.

Tip: 13 mm GIB® plasterboard is available in a range of lengths up to 4800 mm. End joints in ceilings should not be fixed over battens. Back-blocking is the recommended method for jointing the ends of sheets (refer Back-Blocking section).

Metal Battens

The best way to fix GIB® plasterboard to a ceiling is over metal battens. If timber battens are already in place and they are straight and level then these may be reused. Metal is preferred as it provides a more stable substrate that will not shrink or warp.

Fixings

Table 2 indicates the approximate quantities of nails, screws and glue needed for fixing GIB® plasterboard.

Table 2 - Fixings Required per 100m² of GIB® Plasterboard

Material	Approximate Quantity [per 100 m ²]
GIB® Grabber™ Screws	700 walls 1015 ceiling
GIB® Nail	1.5 kg walls
GIBFix® Wood Bond or All Bond	4 litres
GIB Cove® Adhesive (back-blocking)	1 kg per joint

Preparing the Substrate

Preparation is paramount to achieving a good finish. Take the time to ensure that the surface is as flat and straight as possible before applying GIB® plasterboards.

1. Remove any nails, old glue or other fixings that are protruding from the timber.
2. Using an 1800 mm straight edge check the flatness of the wall. There should be no deviations in the framing greater than 2-3 mm from the straight edge.

Tip: Check around windows and doors as these are usually places where problems with flatness occur.

3. Plane any high areas flat or straighten any misaligned studs or nogs/dwangs.
4. Check the timber is dry. The moisture content of the timber should be between 12 and 16%. Timber with a moisture content outside these limits is prone to movement causing problems with joint distortion.

Tip: In older homes the moisture content will probably be OK. If there is any doubt have the moisture checked by a professional.

5. When fixing vertically all joints will need to be made over timber, plan where your joints will be and make sure these will be over timber. Horizontal is the recommended method of fixing GIB® plasterboard, however, there are times when this is not possible.

Handling & Storage of GIB® Plasterboard

Handling

- GIB® plasterboard is a finishing material and as such should be treated with care. Do not walk or sit on stacks of GIB® plasterboard.
- Carry GIB® plasterboard on its edge. Apart from being easier to carry sheets are less likely to crack or break.
- When taking sheets from a stack, avoid dragging a sheet across the one below it as this can damage the face paper.

Tip: GIB® Plasterboard sheets are heavy and may bend or snap under their own weight. Handle sheets carefully and make sure they are properly supported.

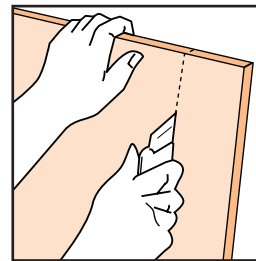
Storage

- The sheets should be stacked in neat flat stacks, clear of the floor, to avoid damage to edges, ends and surfaces.
- Stacks of GIB® plasterboard should be limited to stacks of 20 sheets on non-concrete floors to minimise the risk of structural damage due to point loading.
- If GIB® plasterboard is being stored on new (< 3 months) concrete floors the GIB® plasterboard should be elevated to prevent it from picking up moisture from the concrete or on a piece of waterproof polythene sheet.

Cutting & Attaching GIB® Plasterboard

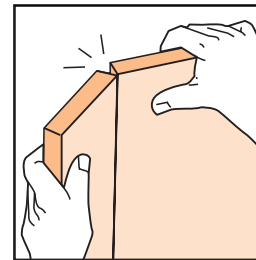
Cutting GIB® Plasterboard Sheets

1. Place the sheet with the light-coloured face paper side up. Measure and mark the sheet to the size desired.
2. Line a straightedge up with the marks and hold firmly against the sheet. Draw a pencil line as a guide for scoring. Score through paper and lightly into the core using a drywall or craft knife.

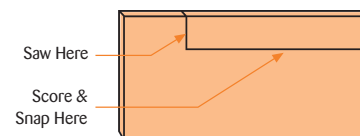


Extreme care should be taken when using sharp tools such as these.

3. To break the sheet core, securely grasp the board edges on both sides of the score line and snap the board with a quick firm movement. Alternatively, break the sheet over the end of the working surface or a length of timber.



4. Complete the cut by running the knife through the back paper of the sheet and snapping back to the face.



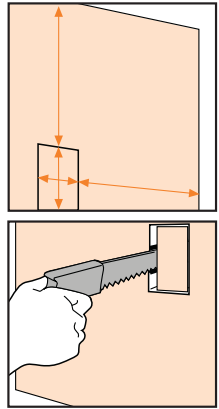
Tip: For sheets that require stepped areas it will be necessary to cut the short cuts with a saw prior to snapping the board.

Cut Outs

For openings such as an electrical outlet or switch box use the following method.

DO NOT use a hammer to create the hole.

1. Measure from where the side of the sheet will be located to the near and far sides of the installed box.
2. Measure from the top or bottom edge of where the sheet will be located to the top and bottom of the box.
3. Trace the outline of the electrical box at the appropriate position on the sheet.
4. Cut with a keyhole saw.



Tip: To get the saw started drill holes at each of the corners but within the opening. In some cases the saw can simply be pushed through the sheet without the need for holes.

Attaching GIB® Plasterboard Sheets

The best practice for fixing GIB® plasterboard involves the use of screws and glue. For walls glue is used to fix the areas in the centre of the sheet that come into contact with a stud or dwang/nog while screws are used around the perimeter of the sheet. For ceilings the same process is used, however, additional screws are required down the centre of the sheet.

GIB® Nails can also be used in place of screws. These nails are specially designed for use with GIB® plasterboard. The nailing of ceilings is not recommended due to the 'springiness' in some timber ceiling battens.

Tip: Do not fix nails or screws through or closer than 200 mm from adhesive as this can cause the nails or screws to 'pop' as the glue dries and shrinks.

Gluing

GIBFix® All Bond can be used for attaching GIB® plasterboard to all surfaces. Alternatively, GIBFix® Wood Bond may be used for adhesion to timber framing and battens.

1. Make sure that the framing is clean and free from oil, dirt or a combination of the two.
2. Apply adhesive using a gun at the appropriate spacing. A glue daub approximately the diameter of the framing timber should be used.
3. Fix the sheet immediately after applying the glue to avoid the glue from 'skinning', resulting in poor adhesion.

Screwing

1. Hold the sheet tight against the framing.
2. Sink screws to just below the sheet surface, leaving the paper intact.

Tip: Use an electric drywall screwgun equipped with an adjustable depth control head and Philips bit.

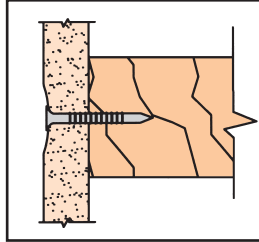
If a screw is overdriven and the paper and/or core of the GIB® plasterboard is damaged, insert a second screw approximately 50 mm from the first and then remove the first screw.

Do not screw within 200 mm of any glue daubs as this can lead to problems such as 'popping'.

Nailing

Screwing is the preferred method for fixing. Nails **must not** be used when fixing GIB® plasterboard to metal ceiling battens.

1. Hold the sheet tight against the framing.
2. Use 30 mm GIB® Nail for 10 mm GIB® plasterboard on walls and 40 mm GIB® Nail for 13 mm GIB® plasterboard on ceilings with timber battens.



Tip: Galvanised clouts lack holding power and are not recommended.

3. Drive the nail into the GIB® plasterboard so that a shallow dimple is formed by the last blow of the hammer.
4. Drive nails in straight, not on an angle. Do not overdrive or countersink nails as this results in breaking of the face paper and fracturing of the GIB® plasterboard core.

Tip: 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.

Do not nail within 200 mm of any glue daubs as this can lead to problems such as 'popping'.

Fixing GIB® Plasterboard to Ceilings

Tip: Because sheets are difficult to manoeuvre above your head it is best to enlist the help of one or two extra people or use a GIB® Plasterboard Lifter.

Planning the Layout

- Use sheets that are the full length of the room, if possible, so that no end joints are formed.
- If 'end' joints must be formed then these should be staggered.
- Battens should be fixed at right angles to the trusses or joists. Where trusses or joists change direction within a room, battens should be fixed in one direction only. This may require additional nogs/dwangs between trusses.
- GIB® plasterboard sheets should be fixed at right angles to the battens.
- Metal battens should be placed at a maximum of 600 mm centres when using 13 mm GIB® plasterboard. If 10 mm GIB® plasterboard is used battens should be spaced at a maximum of 450 mm centres.

Tip: For best results use 13 mm GIB® plasterboard with battens at 600mm centres.

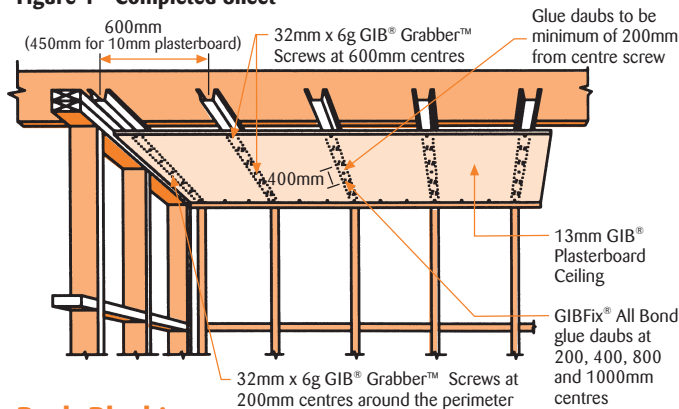
- Back-blocking will be required on the edge (longitudinal) joints where the room is wider than six sheets (7.2 m) on metal battens and four sheets (4.8 m) on timber battens.

Installing GIB® Plasterboard

Screwing is the preferred method of fixing. **Nails must not be used when fixing GIB® plasterboard to metal battens.**

1. Apply GIBFix® All Bond glue daubs to the steel battens at 200 mm, 400 mm, 800 mm and 1000 mm centres starting from the wall ceiling junction. Do not apply glue to the battens closest to the wall or the edge of the sheet.
2. Lift the sheet into position and support using T-braces by wedging these between the floor and the ceiling.
3. Starting from the centre of the sheet and working toward the outside screw the sheet in place using 32 mm x 8 g GIB® Grabber™ screws.
4. Fix down the centre of the sheet to each batten and to either edge of the sheet.
5. Fix each end of the sheet at 200 mm centres.
6. Fix the remainder of the sheets in the same fashion by touch fitting each sheet to the edge of the previous sheet.

Figure 1 - Completed Sheet

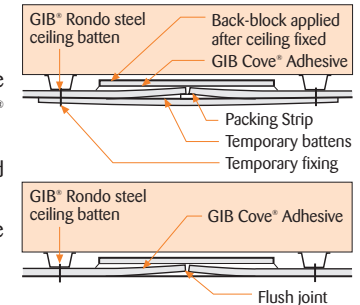


Back-Blocking

If end joints in a room can not be avoided then back-blocking will need to be done. Back-blocking is a practise that strengthens the joints between GIB® plasterboard sheets by creating an artificial taper at the ends of sheets. It consists of laminating strips of GIB® plasterboard to the back surface of sheets directly behind the joints using GIB Cove® Adhesive. **Due to its flexibility do not use GIBFix® or any other panel adhesive for back-blocking.**

Back-blocking butt joints in ceilings with easy access can be done after the ceiling has been installed. If there is no access, back-blocking needs to be completed as the GIB® plasterboard is installed, contact the GIB® Helpline on 0800 100 442 for more information.

1. Fix the sheet to the battens, ensuring that the end joint is located between battens.
2. Fix three temporary battens across the joint.
3. Insert a 1-2mm packer along the joint to bend the ends of the GIB® plasterboard back.
4. Apply a piece of GIB® plasterboard that fits between the battens (400mm wide) to the back of the joint using GIB Cove® Adhesive by climbing into the roof space.

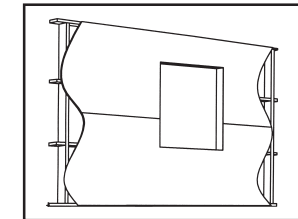


Tip: There is a special technique for completing this where it is not possible to enter the roof space. Contact GIB® Helpline on 0800 100 442 for more information.

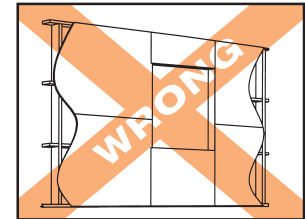
5. Once the plaster has set remove the fixings from the temporary battens.

Fixing GIB® Plasterboard to Walls

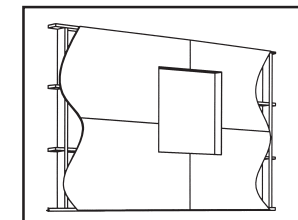
Planning the Layout



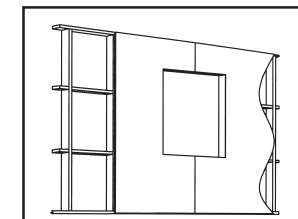
Window Horizontal Fixed - Preferred Option



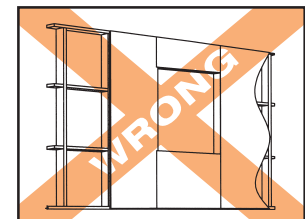
Window Horizontal Fixed



Window Horizontal Fixed - Alternate Option



Window Vertical Fixed



Window Vertical Fixed

Tip: Doors should be treated in the same manner as windows.

- Fix the GIB® plasterboard horizontally, this will ensure that joints are below eye-level and as a result any imperfections are more difficult to see. Any glancing light from windows or lights is less likely to show a shadow line if joints are finished slightly raised.
- Screwing and gluing reduces the number of mechanical fixings in the face of the board decreasing the number of possible imperfections from problems such as 'popping' which are caused by wet timber.
- When fixing horizontally, using Taper/Square Edge board makes subsequent installation of skirting and cove/cornice easier.
- If end joints are required when fixing horizontally, these should be staggered a minimum of one stud apart, 600 mm.
- Stud spacing should be at a maximum of 600 mm.
- For older, existing homes stud spacing may require that GIB® plasterboard sheets be trimmed when fixing vertically. Horizontal fixing is the preferred method.
- **NEVER make joints above or below the corners of windows or doors.**

Installing GIB® Plasterboard

General Fixing Techniques

1. Measure sheets to cut around windows and doors and check that they fit before gluing.
2. Apply glue daubs at a maximum of 300 mm centres to the studs, nogs /dwangs and around windows and doors. Do not place glue in areas where the perimeter of the sheet will be located except around window and door openings.

Tip: Be sure to use sufficient glue (Approximately the size of a 50 cent piece, 10mm thick). Putting too little on can lead to loose GIB® plasterboard and drummy walls.

3. Fix the sheet 10 mm above the floor.

Tip: Place some small off-cuts of GIB® plasterboard at intervals along the wall-floor junction and then rest the sheet on these.

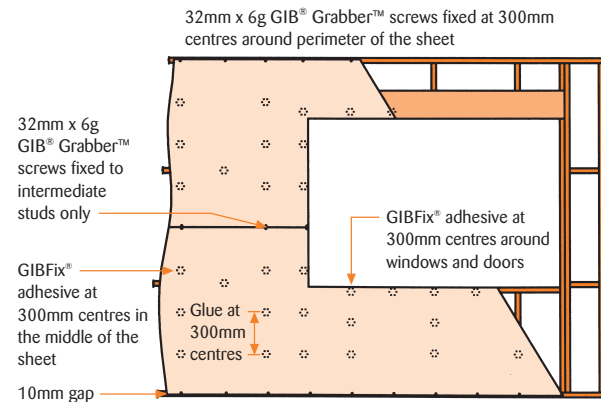
4. Press sheet firmly into place at the location of each of the glue daubs.
5. Screw using 32 mm x 6 g GIB® Grabber™ screws in the tapered area on each stud, starting in the centre and working toward the ends. Screw the remainder of the perimeter of the sheet. Do not screw around windows and doors.
6. Cut and touch fit the next sheet.

Tip: Always fix screws working away from the previous sheet to prevent the board from bowing.

Horizontal Fixing

Install the lower panel first as this will help support the top panel during fixing. If the wall-ceiling junction will be square-stopped then it may be preferable to fix the top sheet first as this will form a neat edge at the top of the wall.

Figure 2 - Completed Horizontally Fixed Sheet



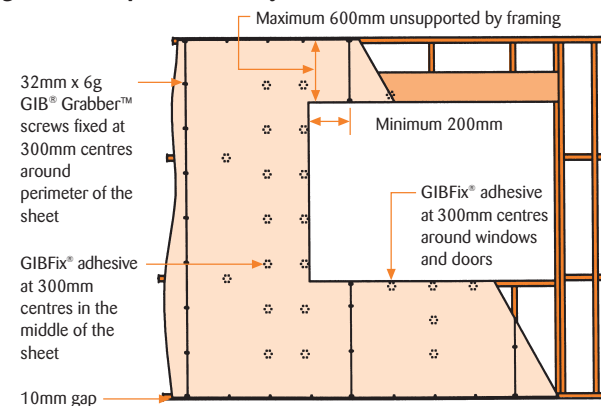
Tip: If the top sheet has been fixed first use a flat crowbar to lift the sheet into place ensuring that there is 10 mm beneath the bottom of the sheet and the floor.

Tip: It may be necessary to trim a small strip from the top edge of the sheet for it to fit. Measure this distance and cut carefully before applying the glue.

Vertical Fixing

The best place to start when fixing vertically is around windows and doors to ensure that joints are not made above or below the corners of windows or doors.

Figure 3 - Completed Vertically Fixed Sheet

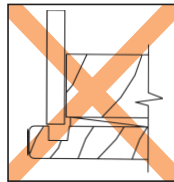
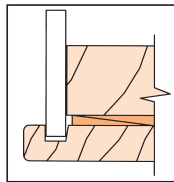


Tip: Ensure that the joint extends a minimum of 200 mm beyond the corner of the edge of the window or door. Joints that are less than 600 mm in length do not need to be made over framing.

Dealing with Grooved Jamb

For best practice, architraves should be used. However, if the use of grooved jamb is unavoidable there are a couple of tips to remember to help achieve the best results.

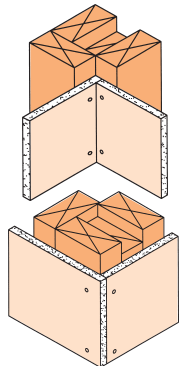
- Ensure that best practice has been used to install windows and doors, i.e. the back edge of the groove and the front face of the timber line up. The GIB® plasterboard should have 1 - 1.5 mm clearance in the groove.
- Do not try to force the GIB® plasterboard into the groove.
- Keep joints to a minimum. It is usually possible to cut into an entire sheet and fit this around windows and doors.
- Remember to allow for the groove when measuring.
- The same rules of extending joints a minimum of 200 mm beyond the edge or windows and doors applies.
- Do not fit a tapered edge into a groove as this will require extra stopping.



Dealing with Corners

Internal Corners/External Corners

To join sheets at an internal corner, butt the second sheet against the first and fasten the second sheet to the stud. To join sheets at an external corner, lap the end of the second board over the end of the first. Make sure the sheets overlap neatly and that the second board does not extend past the face of the first.



Fasten both sheets to a common stud.

Joining & Decorating the GIB® Plasterboard

Joining (stopping) GIB® plasterboard is a skill that requires some practise, as a result you should consider the services of an experienced tradesman. Not only will they achieve a better finish, which is important when painting walls, but they will finish the work more quickly and with less fuss.

Should you wish to try this yourself then take a look at the Joining GIB® Plasterboard guide for more tips and information.

Also in this guide is some further information on decorating GIB® plasterboard, however, paint systems should always be applied in accordance with the paint manufacturers instructions.

Note: Whilst the advice and recommendations contained in this brochure have been produced with proper care, they are offered only with the object of assisting those interested in or involved with the fixing of GIB® plasterboard. Winstone Wallboards Ltd and BRANZ do not accept responsibility for the advice, recommendations, etc, contained herein.



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