

CBI 5113

MARCH 2013

# Interior Finishing

The fundamentals of a quality finish



For more information call the GIB® Helpline 0800 100 442  
or refer to the GIB® Site Guide for installation instructions





# THE FUNDAMENTALS OF A QUALITY FINISH

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No matter how smooth wall and ceiling linings appear, they will never be 100% physically flat and blemish free. This applies to any interior surface comprising jointed sheet type material including fibrous plaster, plywood, MDF, plasterboard and even glass. All of these substrate materials contain physical deviations or minor blemishes.

Although it is impossible to get a perfectly physically flat or blemish free interior surface, it is possible to achieve 'the appearance' of blemish free flatness.

The type of decoration applied to the wall or ceiling surface also has an impact on the perceived quality. Modern interior design using smooth-painted surfaces will highlight imperfections more than if texture or wallpapers are used.

The tips in this document will help make any surface imperfections less visible.

## 1) DRY AND STRAIGHT FRAMING

The final finish quality of a GIB® plasterboard wall or ceiling is heavily influenced by the quality of the framing to which the GIB® plasterboard is fixed. If framing is not straight and aligned, it will be reflected in the finished appearance of the wall or ceiling.

Any timber framing must also be dry prior to the GIB® plasterboard being installed otherwise the framing may shrink or twist as it dries and cause cracks, nail pops and other problems in plasterboard linings. Alternatively steel framing can be used.

## 2) METAL CEILING BATTENS

The use of GIB® Rondo® metal ceiling battens is recommended on all ceilings rather than timber ceiling battens. Because GIB® Rondo® metal ceiling battens hold no moisture they will not bend, twist or warp and therefore help to achieve and maintain a straight and true ceiling.

## 3) 13MM CEILING LININGS

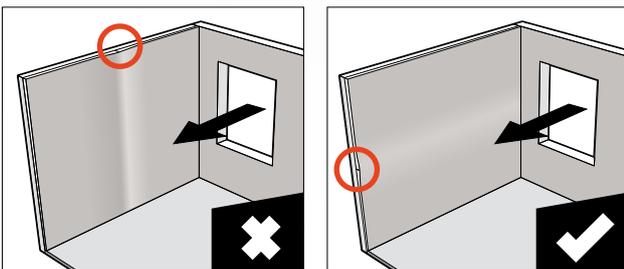
It is recommended that 13mm GIB® plasterboard is used on all ceilings throughout your home. A thicker stronger 13mm GIB® plasterboard gives you extra rigidity to help fight the effects of gravity and structural movement.

If 10mm plasterboard is chosen, then it must be fixed to battens spaced at maximum 450mm centres on ceilings. However, the extra rigidity of 13mm GIB® plasterboard enables you to have ceiling battens spaced up to 600mm apart. Because there are fewer ceiling battens, fewer fasteners are required, resulting in fewer points where imperfections could be visible.



#### 4) HORIZONTAL FIXING

Any imperfections will be most noticeable at the joints of wall linings so it pays to keep these joints to a minimum. Fixing GIB® plasterboard sheets horizontally instead of vertically on walls reduces the number of joints, helping to achieve a more uniform appearance. Horizontal fixing also means that glancing light from adjacent windows shines along the joint, thus reducing the "shadowing" effect that is sometimes noticeable with vertical fixing (see diagram below).



*With horizontal fixing, there is only one joint which is below eye level.*

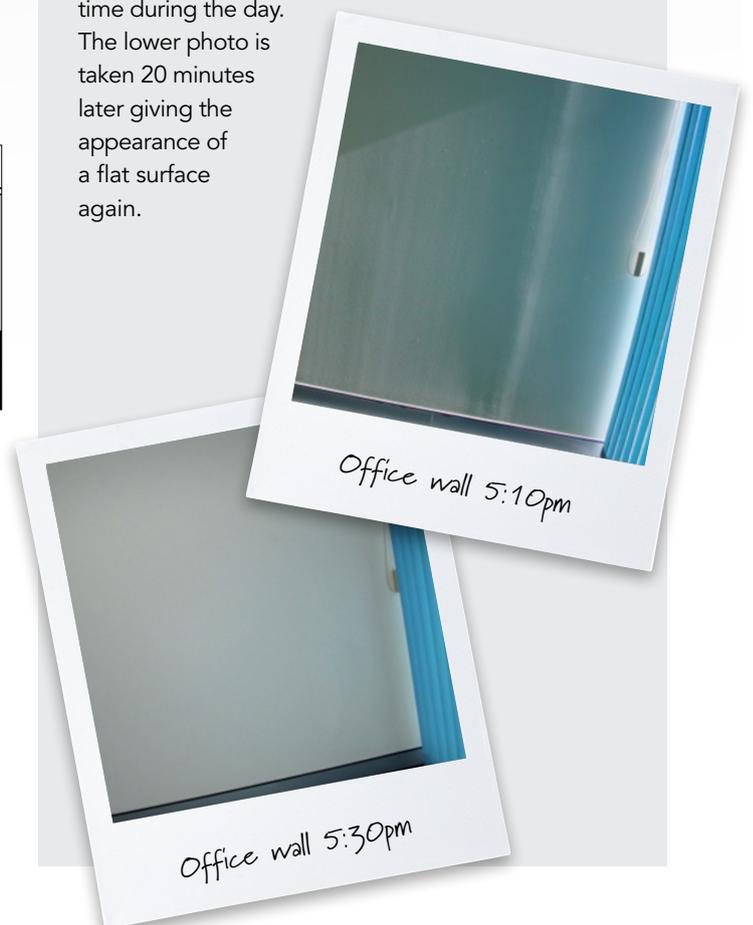
#### 5) CHOOSE THE RIGHT DECORATIVE FINISH

Semi-gloss, gloss and even low sheen paints all reflect light and tend to accentuate even the smallest surface imperfection. On the other hand, flat or matte paints tend to reflect light back in a diffused form and better disguise any surface irregularity. Avoid semi-gloss and gloss paints where you can. Even when the work is carried out by a highly skilled tradesperson, the end result may be disappointing. Dark colours also highlight the slightest imperfections, whereas lighter colours tend to soften the effect of any irregularities by absorbing less light.

#### CASE STUDY: HOME OFFICE

These two images show the effect critical lighting can have of the appearance of a flat plasterboard surface. The top photograph shows the impact of daylight 'glancing' across the surface at a limited time during the day.

The lower photo is taken 20 minutes later giving the appearance of a flat surface again.



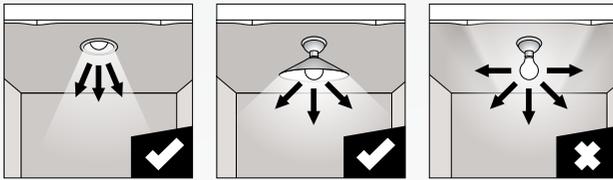
## 6) MINIMISE CRITICAL LIGHTING

Lighting sources can include windows, skylights and artificial wall or ceiling washer lights. Critical lighting should be avoided where possible. If it cannot be avoided it needs to be accepted that some imperfections may be visible under extreme lighting conditions. A degree of agreement, co-operation, acceptance and tolerance is required between parties.

Lighting design is vitally important in minimising the visibility of any minor imperfections because it's the lighting conditions that create the "shadow" that makes any imperfection visible. Lighting design will either accentuate or diminish the visibility of any imperfections.

### CRITICAL LIGHTING

When light strikes a surface at a shallow angle it tends to greatly exaggerate any surface irregularities and this is termed "critical lighting". However, when the angle of light is more or less at right angles to a surface, imperfections are less obvious and this is termed "non-critical lighting".



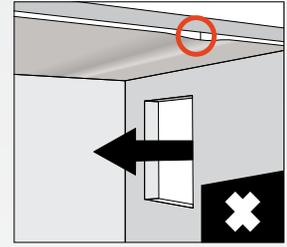
### RECESSED DOWNLIGHTS AND LIGHT SHADES

Incorporating recessed downlights or light shades help to channel light downwards and reduce the amount of glancing or critical light.



## WINDOW POSITIONING AND SHADES

Avoid positioning narrow windows hard up against the end of a wall or ceiling, particularly on long walls or ceilings at the end of a room or hallway. Making a window wider and placing it away from the room corner should reduce the critical lighting effect. Try not to take windows right up to ceiling level. Provide sunshades over the window or recess the window to stop the sunlight reaching the wall.



### AVOID SPOT LIGHTS

Avoid spot lighting or wall mounted up-lighting or be careful about where these lights are directed and the angle at which they hit a surface particularly near jointing.



## LEVELS OF FINISH

Levels of Finish assist in specifying the required quality of finish when installing and stopping plasterboard.

Level 4 and 5 finishes are commonly specified in residential construction. Level 4 finish is the generally accepted level of finish for a residential home. It is used where non-critical lighting falls on satin/flat/low sheen paints, or where critical lighting illuminates wallpaper or textured finishes.

Level 5 finish is for use where gloss or semi-gloss paints are specified or where critical lighting conditions occur on satin, flat or low sheen paints.



## COLOUR & LIGHT

Colour is a magical property that can transform an environment, create a style and set a tone. By using colour you can make dramatic statements in your home and express your own personal creativity.

### COLOUR TRICKS

Tricks with colour can be achieved to make your home appear spacious or light. There are plenty of tricks you can use to enhance the size of your rooms, and on the other hand, if you have a space that you want to look warmer, careful use of colour can offer a simple but effective way to make your home feel cosier. If you want something a little out of the ordinary, different paint techniques can be used to create a wonderful variety of textured effects and they offer an exciting alternative to plain painted walls or wallpaper. These include colour washing, sponging, limewash effects, rag rolling and added sparkle.

### LIGHTING AS ART

Light has the power to characterise and accent rooms. It can convey an aura of intimacy, provide a touch of sophistication and enhance a home's architectural details with special effects.

Good lighting is about more than just light levels. The same level of light can provide effective or ineffective lighting. Some lighting can make rooms flat and featureless even when it's bright.

An efficient and effective lighting system will:

- Provide a high level of visual comfort
- Make use of natural light
- Provide the best light for the tasks commonly undertaken in that space
- Provide controls for flexibility (eg dimmers)
- Have low energy requirements.

A lighting designer will be able to help you design an effective lighting scheme. Ensure you have a detailed lighting plan before construction so that all wiring, cabling and factors influencing quality of finish can be allowed for.

As explained in 'Fundamentals of a Quality Finish' the choice of decorative colour and lighting can have an adverse impact on the flat appearance of interior walls and ceilings. **These decisions must to be considered at the design stage of the project so the level of expectation of the interior finish can best be delivered by all parties.**

# PLANNING

## Areas that a homeowner could influence in the planning process

- Where possible check out previous projects to view the interior finish to assess the designer's and builder's skills and experience.
- Consider the orientation of the building on the site to determine angles and impact of natural lighting
- Determine lighting design (artificial and natural) early. Embossed down lights, wall washers, spotlights, surface mounted, hanging, light shades, concealed lighting or combinations of any of these will assist with delivering the flat wall appearance. In the case of natural lighting also consider the angle of light hitting surfaces at various time of the day specifically the propensity for natural lighting to fall at acute angles across ceilings or walls in early morning or late afternoon.
- Be aware of the impact a room size and window design could have. Consider the impact of full height windows to adjacent wall surfaces.
- Window coverings, i.e. curtains and/or blinds or shade sails, will all influence the volume of natural light entering the interior.
- Finally the type of wall decoration will impact on the appearance of the interior walls and ceilings. Consider the surface finishing material to use. High gloss and/or dark paints tend to accentuate any imperfections while flat and/or light coloured paints will reduce the effect of critical light.

# THE FINISHING PROCESS

The process of installing GIB® plasterboard involves a number of steps and tradespeople. To create a quality finish all trades need to deliver a professional job at each step in order that the next step can be effectively completed.

## FIXING

GIB® plasterboard should be fixed horizontally where possible using GIBFix® adhesive plus GIB® Grabber® screws.

## BASECOAT AND TAPING (STOPPING)

The joint is first covered with a GIB® basecoat compound with GIB® paper tape embedded in the compound to strengthen the joint. A second layer of compound is added later to fill the tapered joint void.

## TOPCOAT COMPOUND

A final GIB® topcoat compound finishes the jointing process to deliver a smooth sandable surface

## SANDING & PAINTING

The final part of the process, once the compound is fully set and dried, is to sand back the surface to a smooth finish. The wall or ceiling surface is then ready for painting or wallpapering.

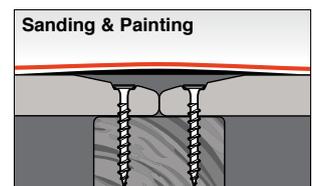
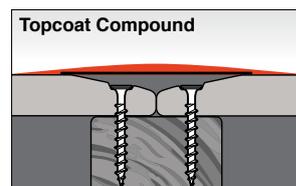
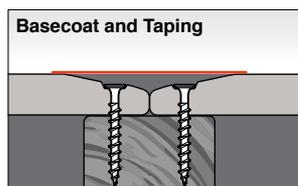
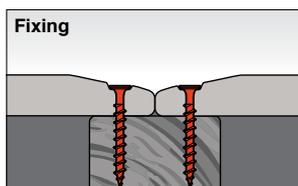
## FACTS ABOUT JOINTING

Prior to the application of the paint or wallpaper, joint compounds must be allowed to adequately 'cure' in order to prevent shrinkage and to deliver the required performance in adhesion and joint strength. There are three variables that affect the speed of 'cure'

- Air temperature
- Relative air humidity
- Movement of air

On a still cold wet day (10°C/90% humidity) there will be minimal drying of GIB® compounds. In comparison on a windy hot dry day (25°C/50% humidity) the air will have 12 times the capacity to carry water and will be substantially more effective in the 'curing' process. A temperature of not less than 10°C is required to ensure that the resins in GIB® compounds cure and to support the evaporation of water.

**Please Note:** Jointing of plasterboard is a manual task which results in a slightly raised area over fasteners and joints. Typically industry norm is that the maximum allowable deviation in the build-up is less than 2mm across the joint, giving a non flat finish that can be highlighted if the wrong colour and lighting choices are made.



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