Finishing
Plasterboard
### 4.1 Levels of Finish

<table>
<thead>
<tr>
<th>Finish</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Standard Requirements</td>
<td>346</td>
</tr>
<tr>
<td>Level 3 Finish</td>
<td>346</td>
</tr>
<tr>
<td>Level 4 Finish</td>
<td>347</td>
</tr>
<tr>
<td>Level 5 Finish</td>
<td>347</td>
</tr>
</tbody>
</table>

### 4.2 Back-Blocking

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-Blocking Requirements</td>
<td>348</td>
</tr>
<tr>
<td>Back-Blocking Ceiling Recessed Joints</td>
<td>349</td>
</tr>
<tr>
<td>Back-Blocking Butt Joints on Ceilings and Walls</td>
<td>350</td>
</tr>
</tbody>
</table>

### 4.3 Jointing Plasterboard

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compounds</td>
<td>352</td>
</tr>
<tr>
<td>Three Coat Jointing System</td>
<td>353</td>
</tr>
<tr>
<td>Internal and External Corners</td>
<td>354</td>
</tr>
</tbody>
</table>

### 4.4 Cornice Installation

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornice Installation</td>
<td>356</td>
</tr>
</tbody>
</table>

### 4.5 Painting Plasterboard

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Standard Requirements</td>
<td>358</td>
</tr>
<tr>
<td>Sealer Undercoat Application</td>
<td>359</td>
</tr>
<tr>
<td>Paint Application</td>
<td>359</td>
</tr>
<tr>
<td>Inspection</td>
<td>359</td>
</tr>
</tbody>
</table>

### 4.6 Glancing Light

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimising Glancing Light</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>361</td>
</tr>
</tbody>
</table>
Plasterboard is finished using jointing compounds, which are sanded and then painted to achieve an even appearance.

No building lining system has a surface that is perfectly flat and totally free of imperfections. By paying attention to framing, plasterboard sheet orientation, paint finishes and lighting conditions, it is possible to attain the perception of flatness.

Careful workmanship is required at each stage of construction to achieve a high quality finish. If faults are not corrected at the earliest opportunity it may be impossible to disguise them afterwards. In addition, there are some key design principles that should be followed to avoid conditions known to highlight imperfections.

**Australian Standard Requirements**

The plasterboard installation standard AS 2589:2017, Gypsum linings – Application and finishing, refers to three ‘Levels of Finish’ (Levels 3, 4 and 5). The standard nominates Level 4 as the default finish unless otherwise specified. Installation in accordance with Knauf instructions will achieve a Level 4 Finish.
LEVELS OF FINISH

4.1

FRAMING REQUIREMENTS FOR EACH LEVEL OF FINISH

Australian Standard 2589 defines allowable deviations in the flatness of the framing surface to achieve the required level of finish. Framing members must have a minimum fixing face width of 32mm for screw fixing and 35mm for nail fixing. Framing should be true, plumb and level. Before installing plasterboard, the frame must be flat enough for the required level of finish. Over a 1.8m straight edge the frame must not deviate more than the values listed in Table 1.

Level 3 Finish

A Level 3 Finish is recommended where no decoration is required such as walls above ceilings and concealed storage areas. The requirements for a Level 3 Finish are:

- Framing as per the requirements in Table 1
- A bedding coat and second coat on all face layer joints and corners.

Level 4 Finish

Level 4 is the default finish and is recommended for most applications when lighting is favourable and light colour, matt or low sheen paints are used. The requirements for a Level 4 Finish are:

- Framing and back-blocking as per the requirements in Table 1
- Face layer joints finished as detailed in Section 4.3 Three Coat Jointing System
- A quality three coat paint system as detailed in Section 4.5 Painting Plasterboard.

Level 5 Finish

A Level 5 Finish is the highest level of finish defined in the Australian Standard. Installation of the frame and plasterboard, finishing with compounds and the correct application of paint all contribute to a Level 5 Finish. Even if completed correctly, a Level 5 Finish may not result in all surface deviations being concealed, only minimised.

A Level 5 Finish is recommended where gloss, semi-gloss or dark colour paints are used, or in harsh or critical lighting conditions which are referred to as glancing light. Higher standards are required for frame flatness, jointing and back-blocking. It involves coating the entire wall or ceiling to provide an even surface texture and porosity, which helps conceal joints and fixing points. The coating may be sprayed, rolled or trowelled over the surface.

The requirements for a Level 5 Finish are:

- Framing as per requirements in Table 1
- Back-blocking of all ceiling joints and wall butt joints
- Joints finished as detailed in Section 4.3 Three Coat Jointing System
- Application of an additional coating over the entire surface to provide uniform texture and porosity
- A quality three coat paint system as detailed in Section 4.5 Painting Plasterboard.

For a premium Level 4 Finish use OPAL. [Refer to the latest OPAL information on the website]

TABLE 1 Level of Finish Requirements for Non-Fire Rated Systems

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-block recessed joints on ceilings with 3 or more recessed joints</td>
<td>Optional</td>
<td>✓ 1</td>
<td>✓</td>
</tr>
<tr>
<td>Back-block recessed joints on ceilings with less than 3 recessed joints</td>
<td>Optional</td>
<td>Optional 1</td>
<td>✓</td>
</tr>
<tr>
<td>Ceiling but joints permitted on framing members</td>
<td>✓</td>
<td>✗ 2</td>
<td>✗ 2</td>
</tr>
<tr>
<td>Wall but joints permitted on framing members</td>
<td>✓</td>
<td>✗ 2</td>
<td>✗ 2</td>
</tr>
<tr>
<td>Minimum number of coats for jointing</td>
<td>2</td>
<td>3</td>
<td>3 and Skim Coat</td>
</tr>
<tr>
<td>Maximum frame deviation of 90% of area (mm)³</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Maximum frame deviation of remaining area (mm)³</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Back-blocking not required for recessed joints on suspended ceiling with no rigid connection at wall/ceiling junction.
2 Back-blocking is required on these joints. [For more information, Refer to Section 4.2]
3 Over a 1.8m straight edge the frame must not deviate by more than these values.
Back-blocking is a method for reinforcing plasterboard joints to minimise joint cracking and peaking.

Back-blocked joints use strips of plasterboard adhered to the back of the joint between the framing members. Back-blocking adhesive must be set before commencing jointing.

**TABLE 2 Back-Blocking Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Back-Blocking Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butt joints not made on a framing member</td>
<td>✓</td>
</tr>
<tr>
<td>Ceiling joints in balconies and breezeways</td>
<td>✓</td>
</tr>
<tr>
<td>Joints using MastaLite or MastaCoat3 for all three coats except those made over a framing member</td>
<td>✓</td>
</tr>
<tr>
<td>Joints using self-adhesive fibreglass tape except those made over a framing member</td>
<td>✓</td>
</tr>
<tr>
<td>Joints made over a framing member</td>
<td>✗</td>
</tr>
<tr>
<td>Multi-layer systems</td>
<td>✗</td>
</tr>
<tr>
<td>Wall butt joints less than 400mm in length and more than 2 metres above the floor</td>
<td>✗</td>
</tr>
</tbody>
</table>
Back-Blocking Requirements

Each level of finish has specific joint location and back-blocking requirements [Refer to Table 1 Section 4.1].

Back-Blocking Ceiling Recessed Joints

It is strongly recommended to back-block all ceiling recessed joints.

Method

- Ensure the back of the plasterboard is free of dust and dirt.
- Cut back-blocking strips 200mm minimum wide and long enough to fit loosely between the framing members with a gap not greater than 30mm at each end.
- Use a notched spreader to apply MastaBlock to the back-blocking strips to form 6mm beads at right angles to the joint.
- Apply back-blocking strips firmly to the back of the joint.
- Where there is no access to the back of the ceiling, fix the first ceiling sheet, apply MastaBlock to the back-blocking strip and place it midway on the board, then fix the next board.
- Allow MastaBlock to set before commencing any jointing.

**FIGURE 1 Placement of Back-Blocking Strips For Recessed and Butt Joints**

**FIGURE 2 Placement of Back-Blocking Batten and Back-Blocking Strips for Recessed and Butt Joints**
Back-Blocking Butt Joints on Ceilings and Walls

Butt joints are more difficult to conceal than recessed joints so they should be minimised. If butt joints are unavoidable, concealing them can be made easier by creating the joint mid-way between framing members, forming a recess and back-blocking. Butt joint requirements differ for each level of finish [Refer to Table 1 Section 4.1].

Method

- Create a recess by using either back-blocking battens as shown in Figure 3 or packers as shown in Figure 4 and 5.
- Ensure the back of the plasterboard is free of dust and dirt.
- Cut back-blocking strips 400mm minimum wide and long enough to fit loosely between the framing members. Back-blocking strips are to overlap recessed joints by 50mm minimum.
- Wall butt joints need support for the back-blocking strips as shown in Figure 5.
- Use a notched spreader to apply MastaBlock to the back-blocking strips to form 6mm beads at right angles to the joint.
- Apply back-blocking strips firmly to the back of the joint.
- Where there is no access to the back of the ceiling, fix the first ceiling sheet. Apply MastaBlock to the back-blocking strip and place it midway on the board, then fix the next board.
- Allow MastaBlock to set before commencing any jointing.
- Where possible, avoid wall butt joints over single doors and cavity sliding doors to minimise joint cracking from vibration.
BACK-BLOCKING

4.2

FIGURE 3 Creating a Recess at Butt Joints Using Back-Blocking Battens – Elevation

FIGURE 4 Creating a Recess at a Butt Joint – Elevation

FIGURE 5 Creating a Recess at a Wall Butt Joint Using Laminating Screws – Plan View
Jointing Plasterboard

Plasterboard walls and ceilings are jointed using compounds and reinforced with paper tape or corner beads.

All joints, internal and external corners and fastener heads must be evenly finished with compounds and lightly sanded to remove tool marks and ridges prior to decoration.
Compounds

Use Knauf compounds with Knauf plasterboard systems. Performance of all systems in this guide rely on using nominated Knauf compounds. Use of non-Knauf compounds may reduce a system’s fire rating, appearance or other aspects of performance.

To achieve the FRL, fire rated systems require, as a minimum, paper tape and two coats of MastaBase/MastaLongset or three coats of MastaLite. Alternatively use Bindex Fire & Acoustic Sealant as permitted and detailed in the Bindex Technical Data Sheet. External fire rated wall systems with a moisture barrier wall wrap and non-combustible cladding covering the plasterboard do not require jointing.

Joints in wet areas must use paper tape. Areas to be tiled must only use MastaBase or MastaLongset.

Multi-layer systems only require face layer joints to be set, except GIB X-Block systems where all layers must be set.

There are two types of products used for jointing plasterboard: chemical setting compounds and air-drying compounds.

CHEMICAL SETTING COMPOUNDS

Chemical setting compounds are plaster based, supplied in powder form and when combined with water harden by chemical reaction. They create the strongest joint.

Chemical setting compounds can be completely set but still damp. In cold and humid conditions, additional coats of chemical setting compounds can be applied to the joints when the compound is hard but before it is completely dry.

Hot and dry conditions may dry out the compound before it sets resulting in reduced strength and tape adhesion issues. Accelerating and retarding additives must not be used as they can also reduce strength.

Chemical setting compounds must not be applied over air-drying compounds.

AIR-DRYING COMPOUNDS

Air-drying compounds are premixed and harden by drying out. They are softer than chemical setting compounds, and are designed for easy sanding.

Previous coats of air-drying compound or chemical setting compounds must be completely dry before applying the next coat and before sanding. MastaTape Universal dries strong and is harder to sand.

In cold and humid conditions air-drying compounds may take longer to dry. Ventilation such as open windows or an exhaust fan may be required. Air-drying compounds must not be used in temperatures lower than 10°C.

### TABLE 3 Type and Use of Finishing Compounds

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Type</th>
<th>Possible Compound Applications</th>
<th>Wet Areas Under Tiles</th>
<th>Fire Rated Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Bedding</td>
<td>Second</td>
<td>Finish</td>
</tr>
<tr>
<td><strong>Bedding Cements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaBase</td>
<td>Chemical setting powder</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MastaLongset</td>
<td>Chemical setting powder</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Finishing Compounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaFinish</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaGlide</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All Purpose Compounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaLite</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>MastaCoat3</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>MastaLine</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>MastaTape Universal</td>
<td>Air-drying premixed</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
Three Coat Jointing System

The Three Coat Jointing System consists of a Bedding Coat, a Second Coat and a Finish Coat of compound. Level 4 Finish and Level 5 Finish must use the Three Coat Jointing System for all joints and external corners.

Internal corners only require a Bedding Coat and a Finish Coat.

BEDDING COAT (FIRST COAT)

Method

- Fill any gaps more than 4mm at the joint and allow compound to set or dry
- Using a 150mm broadknife, evenly fill the recess with compound [Refer to Figure 9 for minimum coat widths]
- Place tape along the joint and bed it into the compound, removing excess compound and any air bubbles from behind the tape [Refer to Figures 6 & 7]
- Apply a skim coat of compound over the tape [Refer to Figures 6 & 7].

SECOND COAT

Method

- Allow the first coat of compound to set or dry
- Use a 200mm trowel to apply a second coat of compound [Refer to Figures 8 and to Figure 9 for minimum coat widths]
- Feather the joint edges to remove excess.

Information

- Paper tape is strongly recommended for all joints.
- Joints made using paper tape are stronger and less prone to defects than those made with fibreglass tape. For the strongest joint, paper tape is recommended with two coats of MastaBase or MastaLongset and a final coat of MastaFinish, MastaGlide, MastaLite or MastaLine.
- If fibreglass tape is used, all joints must be back-blocked. Fibreglass tape is not permitted for use in wet areas or fire rated systems.

Use broadknives, or a curved trowel for recessed joints and a flat trowel for butt joints on framing members.
**FINISH COAT (THIRD COAT)**

**Method**
- Allow the second coat to set and dry. Lightly scrape off any lumps and high spots of compound.
- Use a 280mm trowel to apply a third coat of compound [Refer to Figure 10 and to Figure 9 for minimum coat widths].
- Feather the joint edges to a smooth even surface, removing any excess.
- Allow the compound to fully dry before sanding.

**FIGURE 10 Finish Coat**

**FASTENERS**

- Cover fastener heads with at least two coats of compound. Apply each coat in a different direction.

**SANDING**

**Method**
- Lightly sand to a smooth even surface using a sanding float and 180 grit paper or 220 sanding mesh. Use finer paper for MastaLite (e.g. 220 paper) [Refer to Figure 11].
- Do not expose or scuff the paper linerboard while sanding.
- Use power sanders with care as they can easily over sand the joint.
- A finished joint should have a slight crown.

**FIGURE 11 Sanding**

**Internal Corners**

**Method**
- Use a 75mm broadknife to apply compound to the corner.
- Fold paper tape in half and bed it into the compound using a corner taping tool.
- Cover the tape with a thin coat of bedding compound and remove any excess. Allow to set or dry.
- Apply a finish coat with a 100mm broadknife to both sides of the angle.
- Feather the edges and finish the joint with an internal angle finishing tool. Allow to dry.
- Lightly sand to a smooth finish before painting.

**External Corners**

**Method**
- Position a corner bead ensuring that it is plumb and straight [Refer to Figure 12].
- Fix the bead in place using fasteners or staples at 300mm centres on both sides.

Treat external corner beads with the three coat jointing system as described previously. The minimum width of the three coats on both sides of the external corner is:
- Bedding coat 200mm
- Second coat 230mm
- Finish coat 250mm.
Cornice Installation

Cornice is used to complete the decoration of the building. Cornice is fixed to walls and ceilings using cornice cements, which are chemical setting compounds available in powder form.

Cornice cements are selected depending on the length and stability of the setting time, as well as their features for practical application, such as the ability to work back the cornice cement, polish mitres and the instant grab strength.
TABLE 4 Type and Use of Compounds – Cornice Cements

<table>
<thead>
<tr>
<th>Compounds</th>
<th>Type</th>
<th>Setting Time</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Minutes</td>
<td>Cornicing</td>
</tr>
<tr>
<td>Cornice Cements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaCove45</td>
<td>Chemical Setting Powder</td>
<td>45</td>
<td>✓</td>
</tr>
<tr>
<td>MastaCove75</td>
<td>Chemical Setting Powder</td>
<td>75</td>
<td>✓</td>
</tr>
<tr>
<td>MastaSmooth</td>
<td>Chemical Setting Powder</td>
<td>45</td>
<td>✓</td>
</tr>
<tr>
<td>3-in-1 Specialty Cement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MastaFix20</td>
<td>Chemical Setting Powder</td>
<td>20</td>
<td>✓</td>
</tr>
</tbody>
</table>

Method

- Ensure that wall and ceiling surfaces are free of dust and dirt
- Measure and cut all cornices to the required lengths. Cut internal and external mitres using a mitre box
- Avoid joints in straight runs where possible. If necessary, mitred joints are recommended
- Measure and mark cornice projection on wall and ceiling to ensure accurate placement
- Mix only the quantity of cornice cement that can be used within the setting time
- Spread a 10mm continuous bead of cement along both back edges and the mitred end of the cornice [Figure 13]
- Press the cornice into place and if necessary hold with temporary nails in the wall and ceiling along the edges of the cornice [Figure 14]
- Clean off excess and remove nails when cement has partially set [Figure 15]
- Straight stop along cornice edge at wall and ceiling. Finish mitres using a small cornice tool [Figure 16]
- Wipe down the cornice with a wet sponge [Figure 17].

FIGURE 13
Butter Up

FIGURE 14
Position Cornice

FIGURE 15
Clean Off Excess

FIGURE 16
Mitres

FIGURE 17
Wipe Down
Painting systems and methods are detailed in Australian Standard AS/NZS 2311, Guide to the painting of buildings. If painting plasterboard, a **Three Coat Paint System** must be applied to achieve the best finish. This consists of a sealer undercoat followed by two top coats. Both the quality of the paint and how it is applied have a large effect on the finished appearance of the plasterboard. Two coat paint systems are not nominated by AS/NZS 2311 as they often do not meet the customer’s expectations by showing up joints through texture and sheen variations.
Sealer Undercoat Application

RECOMMENDATIONS

› Ensure surfaces are set and dry
› Lightly sand any minor surface defects and brush down surfaces to remove dust
› Apply a sealer undercoat suitable for plasterboard, preferably with a roller. Plasterboard that has been exposed to sunlight and/or is discoloured will require a stain sealer undercoat
› Ensure that the sealer undercoat is applied such that the plasterboard paper fibres remain flat
› Check for any unsuitable surface imperfections and repair
› Lightly sand with fine to medium grade paper before applying top coats
› Avoid overworking sealer undercoat on plasterboard joints to avoid paint lifting.

Paint Application

RECOMMENDATIONS

› Ensure surfaces are dry
› Lightly sand any minor surface defects and brush down surfaces to remove dust
› Cut in edges with a brush
› Apply paint to the broad areas with an appropriate 10-14 mm nap synthetic roller. The roller nap gives a slight texture that improves the overall evenness of finish
› Ensure each paint film is dry and manufacturer’s recoat times are followed before applying the next coat.

If plasterboard is to be spray painted, the paint must not be diluted more than the manufacturer recommends. While the sealer undercoat is still wet, the surface should be back rolled to leave a ‘roller finish’. This helps to equalise the surface texture between the plasterboard and the set joints. For best results also back roll 2nd and 3rd coats. Any minor paint touch-ups can then be done with a roller rather than having to re-spray.

Inspection

The final inspection of a plasterboard wall or ceiling occurs after painting. AS/NZS 2589 AS/NZS 2311 recommend that visual inspection of finished surfaces of plasterboard be carried out in ordinary lighting, sighting from a distance of at least 1.5 metres from the surface. If differences of appearance are not clearly discernable the finish is usually considered acceptable.

To achieve a good quality painted finish, the following recommendations in addition to the three coat paint system should be followed:

› Apply paint according to the manufacturer’s recommendations
› Avoid spraying or brushing which require advanced application techniques
› Choose white or light colours, flats for ceilings and matt or low sheen paints for walls
› Select a Level 5 Finish when using medium to high gloss or dark coloured paints, or in areas of glancing light in accordance with AS2589. These paints highlight any minor imperfections in the plasterboard and make the joints more visible.

For more information on glancing light, painting and other subjects affecting the appearance of plasterboard walls and ceilings, refer to:

› www.awci.org.au (Association of Wall and Ceiling Industries – Australia and New Zealand)
› www.apmf.asn.au (Australian Paint Manufacturers Association).
Glancing light is natural or artificial light that is cast along a surface. Glancing Light refers to light being cast along the face of a surface showing any minute undulation. As a result of this light being cast, a shadow is produced on the other side of the undulation. This draws attention to surface texture variations, such as plasterboard joints and patches, which under more diffused light would not be visible.

The glancing light condition can occur even when the wall or ceiling has been built according to AS/NZS 2589. Glancing light effects are directly linked to the type and placement of light sources relative to ceilings and walls.
Glancing light can highlight the following surface conditions:

- Sheet joints
- Surface irregularities
- Patches
- Variations in paint application technique.

Attention can also be drawn to minor deviations inherent in the manufacture and installation of plasterboard.

**Minimising Glancing Light**

**INTERIOR DESIGN**

The following are recommendations to reduce the effect of glancing light:

- Avoid full length windows in direct sunlight
- Avoid locating windows close to perpendicular wall and ceiling surfaces during design phase
- Diffuse light entering a room by using curtains, blinds or other window treatments
- Introduce curtains or blinds where windows are close to wall and ceiling surfaces
- Use low gloss, light coloured paints applied with a brush or roller.

**FRAMING**

Framing members should be straight and aligned.

**SHEET ORIENTATION**

Plasterboard sheets should be fixed parallel to the light source. Also arrange the sheets to minimise the number of joints.

**LIGHTING**

Glancing light caused by artificial lighting can be addressed by changing the type and/or positioning of the light fittings. Natural lighting problems are normally caused by building geometry. An example is running windows right to the edge of the ceiling or wall line.

The following are recommendations for design of light fittings:

- Use recessed downlights and recessed fluorescent tubes
- Shade batten-fixed bulbs on the ceiling and table lamps
- Avoid designs that will create glancing light conditions where possible
- Position downlights so that they do not shine down the surface of a wall.

**LEVEL 5 FINISH**

A Level 5 Finish is the highest level of finish possible and can assist in reducing the effect of glancing light. By covering the entire surface, the skim coat of a Level 5 Finish fills any slight impressions in the surface, and removes the difference in texture and paint absorption between plasterboard and the joints. The framer, plasterer and painter all need to cooperate and contribute to providing a Level 5 Finish. Even when applied correctly, a Level 5 Finish is no guarantee that all surface deviations will be invisible, only minimised [Refer to Section 4.1 for details on Level 5 Finish].