

Finishing and Decoration of Plasterboard – A Joint Industry Approach

The Association of Wall and Ceiling Industries (AWCI) and the Australian Paint Manufacturer's Federation (APMF), recognising the need for a clear and concise position on the finishing and decoration of plasterboard, have collaborated on the publication of this Information Sheet.

This document identifies the standards of finish which may be expected from different installation, finishing and decoration practices and problems that may arise from inappropriate choices.

A plasterboard wall or ceiling presents the painter with a surface comprising two materials of differing texture and porosity. To ensure a satisfactory finish, these differences in surface characteristics must be addressed.

Unless otherwise specified a Level 4 plasterboard finish as defined in AS/NZS Standard 2589 Gypsum Linings Application and Finishing shall be taken as the standard finish for plasterboard presented for painting.

Level 4

Plasterboard should be installed on walls horizontally. Ceiling sheets should be installed parallel to primary light source and where appropriate back-blocked. Where possible full sheets should be used thus minimising the need for butt joints.

Jointing should comprise a 3-coat system. Each coat should be fully dried. The top coat should be sanded to a smooth, even finish. Edges should be feathered in order to minimise scuffing of the paper face.

Similarly, internal and external corners, fixings and cornice installation should be finished to the same standard. This will deliver a substrate in a suitable condition to accept paint.

Gloss Banding/Sheen Staining

These terms are used to describe the phenomena where the plasterboard joints exhibit variability in gloss level

compared to the overall surface appearance. This is often due to the failure to use an appropriate sealer.

Relevance of AS2311

One of the objectives of the paint system, as defined in Australian Standard AS 2311 – Guide to the Painting of Buildings is to deliver the appearance of a uniform surface texture and colour.

Sealing the Surfaces

An essential first step is to seal the face of the plasterboard and the plaster joints with a good quality sealer undercoat. This will ensure an even “suction rate” and provide a degree of opacity for subsequent paint coats. In some cases, the sealer undercoat could be considered as the most important component of the paint system.

The application of the sealer undercoat should be carried out in such a way as to ensure that the plasterboard paper face fibres remain flat.

In some circumstances, an initial coat of a suitable sealer will be required on surfaces subject to yellowing, bleed or sheen staining. Where that sealer is not a sealer undercoat and does not exhibit the properties of an undercoat, the sealer coat needs to be followed by an appropriate undercoat prior to the top finishing coats.

Once the sealer undercoat has fully dried two top coats of water-based paint must be applied (ensuring adequate drying between coats) as defined in AS 2311.

The performance of the finished paint system and the appearance of walls and ceilings are highly dependent

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on the quality of the paint used, application method, colour and sheen level.

Expectations of Painted Plasterboard

- A level surface with no visible joints when viewed from the normal viewing position and under normal lighting conditions.

- A serviceable and even sheen decorative finish

These expectations will be difficult to achieve due to:

- Poor design concepts;
- Poor workmanship;
- Poor quality paint;
- Failure to use a suitable sealer/undercoat;
- Glancing light due to natural and/or artificial lighting conditions;
- Crowned or starved joints;
- Insufficient drying times;
- Dark coloured paints;
- Gloss paints.

Brush, Spray or Roll?

Brush

Provides a reasonably smooth finish but slow application – not common practice. Brush application does not impart an appropriate texture.

Roller

Provides a low to a medium build ‘orange peel’ texture finish. It is generally agreed that roller application of paint is the preferred method as a uniform finish and texture is imparted to the surface with each coat of paint. Roller application also provides an even film build over the plasterboard and jointed areas.

Spray

Provides the smoothest finish and is 20% quicker than rolling. However, it is difficult to touch up after the job is completed and does not deliver a uniform finish.

However, if spray application is used an acceptable finish can only be achieved if the coats are ‘back rolled’ while the paint is still wet. This will provide a uniform texture over the entire surface and flatten any raised nap or paper fibres, promote adhesion of each coat and give a uniform surface when patch repairing. Backrolling is required on Level 4 or better surfaces.

Other problems that may arise from spray application:

- Temperature conditions may prematurely dry the paint before back rolling can impart the required texture to the surface;
- Over dilution of the paint will reduce paint opacity and texture;
- Heavy application/overloading of a single coat will soften the top coat of jointing compound resulting in a general breakdown of the compound;

- Shrink-back of topping compound around fastener heads may occur.

Touch Up and Repairs

When patching or repairing gypsum plasterboard where compound is used for the repair, recoating will require full surface treatment including sealer undercoat followed by top coats.

Glancing Light

This phenomenon is also known as ‘Critical Lighting’ and is defined as natural or artificial light projected across a surface at a low incidence angle. See example photos of a painted plasterboard wall photographed over a 40 minute interval.



Which Level of Finish/Paint System?

Best

- Level 5 plasterboard installation;
- Sand, dust and wipe surface with damp cloth;

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- 1 coat of water-/oil-based sealer/undercoat;
- 2 top coats of premium paint of selected sheen level;
- Sanding between all coats.

Acceptable (AS 2311 Requirement)

- Level 4 plasterboard installation;
- Sand and remove dust;
- 1 coat of acrylic sealer/ undercoat;
- 2 top coats of selected flat or low sheen paint.

Not Acceptable

- Sand and dust;
- 1 coat of acrylic sealer/undercoat – tinted to the final colour;
- 1 top coat of flat or low sheen paint.

or

- Sand and dust (sometimes);
- 2 coats of flat or low sheen paint.

Both the above do not meet AS/NZS standard or Plasterboard Manufacturers' requirements and may fail to meet customer expectations by resulting in the problems outlined in this Information Sheet.

Experience has shown that non-specified products and systems, i.e., 2-coat paint systems, generally

do not deliver an acceptable paint finish. In these circumstances, the cause of the failure will have to be determined and appropriate rectification carried out which may be expensive and time consuming.

Summary

Whatever the system, the objective is to equalise the texture difference and suction rate of the paper face and stopped joint. This can only be achieved by good plasterboard installation practice, selection of quality paints and suitable application methods resulting in a minimum finished dry film thickness of 75 microns.

The final result can be influenced by other factors such as inappropriate lighting. These factors should be considered at the design stage.

Unless the plasterboard and paint systems have been installed and/or applied strictly in accordance with the manufacturers' specifications and those of the applicable Australian Standards, the plasterboard and paint manufacturers cannot warrant the performance and integrity of the plasterboard, the jointing and the paint systems.

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