

Gypsum Board Surface Preparation

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This recommended specification describes various levels of finish of gypsum board surfaces prior to the application of specific types of final decoration. The recommended level of finish of gypsum board wall and the ceiling surfaces varies with the final decoration to be applied and can also be dependent on their location in a structure and the type of illumination striking the surface. Each recommended level of finish is described with typical applications.

Terminology

The following definitions are applicable to this document:

Accessories: Metal or plastic beads, trim, or moulding used to protect or conceal corners, edges, or abutments of the gypsum board construction.

Critical Lighting: Strong side lighting from windows or surface-mounted light fixtures. Syn. severe lighting. See "comments" section of this document.

Joint Photographing: The shadowing of the finished joint areas through the surface decoration. Syn. telegraphing.

Primer/Sealer: A paint material formulated to fill the pores and equalize the suction difference between gypsum board surface paper and the compound used on finished joints, angles, fastener heads, and accessories, and over skim coatings. See "comments" section of this document.

Skim Coat: A thin coat of joint compound over the entire surface to fill imperfections in the joint work, smooth the paper texture, and provide a uniform surface for decorating.

Spotting: To cover fastener heads with joint compound.

Texture: A decorative treatment of gypsum board surfaces.

Texturing: Regular or irregular patterns typically produced by applying a mixture of joint compound and water, or proprietary texture materials including latex base texture paint, to a gypsum board surface.

Levels of Finish

The following levels of finish are established as a guide for specific final decoration:

Level 0: No taping, finishing, or accessories required. This level of finish may be useful in temporary construction or when the final decoration has not been determined.

Level 1: All joints and interior angles shall have tape embedded in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable. Level 1 is frequently specified in plenum areas above ceilings, in attics, in areas where the assembly would generally be concealed, or in building service corridors and other areas not normally open to public view. Accessories are optional at specifier discretion in corridors and other areas with pedestrian traffic.

Level 2: All joints and interior angles shall have tape embedded in joint compound and one separate coat of joint compound applied over all joints, angles, fastener heads, and accessories. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable. Specified where water resistant gypsum backing board (ASTM C630) is used as a substrate for tile; may be specified in garages, warehouse storage, or other similar areas where surface appearance is not of primary concern.

Level 3: All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. All joint compound shall be smooth and free of tool marks and ridges.

Typically specified in appearance areas which are to receive heavy or medium texture (spray or hand-applied) finishes before final painting, or where heavy grade wallcoverings are to be applied as the final decoration.

This level of finish is not recommended where smooth painted surfaces or light to medium weight wallcoverings are specified.



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Level 4: All joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. All joint compound shall be smooth and free of tool marks and ridges.

This level should be specified where light textures or wallcoverings are to be applied or economy is of concern.

In critical lighting areas, flat paints applied over light textures tend to reduce joint photographing. Gloss, semi-gloss, and enamel paints are not recommended over this level of finish.

The weight, texture, and sheen level of wall coverings applied over this level of finish should be carefully evaluated. Joints and fasteners must be adequately concealed if the wallcovering material is lightweight, contains limited pattern, has a gloss finish, or any combination of these features is present. Unbacked vinyl wallcoverings are not recommended over this level of finish.

Level 5: All joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. A thin skim coat of joint compound, or a material manufactured especially for this purpose, shall be applied to the entire surface. The surface shall be smooth and free of tool marks and ridges.

Level 5 is recommended where gloss, semigloss, enamel, or non-textured flat paints are specified or where severe lighting conditions occur. This "highest quality" finish is the most effective method to provide a uniform surface and minimize the possibility of joint photographing and of fasteners showing through the final decoration.

Comments

Critical (Severe) Lighting Areas: Wall and ceiling areas abutting window mullions or skylights, long hallways, or atriums with large surface areas flooded with artificial and/ or natural lighting are a few examples of critical lighting areas. Strong side lighting from windows or surfacemounted light fixtures may reveal even minor surface imperfections. Light striking the surface obliquely at a very slight angle greatly exaggerates surface irregularities.

If critical lighting cannot be avoided, the effects can be minimized by skim coating the gypsum board surfaces, or by decorating the surface with medium to heavy textures, or by the use of draperies and blinds which soften shadows. In general, gloss, semi-gloss, and enamel finishes highlight surface defects and textures hide minor imperfections.

Tool Marks and Ridges: A smooth surface may be achieved by lightly sanding or wiping joint compound with a dampened sponge. Care shall be exercised to ensure that the nap of the gypsum board facing paper is not raised during sanding operations.

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