

AND FINISHING

DECORATING

Gypsum Board Surfaces

Imprecise terminology often used in contract documents leave dry-wall contractors with inadequate information as to how gypsum board walls and ceilings should look prior to final decoration with paints and other wallcoverings. As diligently and earnestly as contractors are in attempting to meet designers' expectations, the misinterpretation of nonspecific terms such as "industry standards" or "workmanlike finish" is inevitable. New terminology has become necessary to enable the various stakeholders to share an understanding of project goals.

In 1988, four major construction trade associations—the Gypsum Association, the Association of the Wall and Ceiling Industries—International, the Ceiling & Interior Systems Construction Association, and the Painting and Decorating Contractors of America—collaborated to develop that terminology and resolve the problem. The result of this industry-wide effort was the development and publication of Recommended Levels of Gypsum Board Finish, commonly known as GA-214-96. This technical publication has served a number of purposes since it was first published. It has helped contractors, specification writers, architects and building owners describe more precisely the wall and ceiling finishes desired on the substrate for the application of final decoration. It has created a consistent basis for competitive bidding by providing more clearly defined finished surfaces. It also has clar-



ified industry recommendations for the appropriate level of finish as a function of the final decoration that will enhance the appearance of the completed wall or ceiling surface.

The level of finish specified for any given gypsum board wall or ceiling depends on several factors. The degree of decorative treatment desired as it relates to the occupancy of the space affects the level of finish specified. Unpainted surfaces in warehouses and service areas, where appearance normally is not important, may simply require taping wallboard joints and "spotting," or covering, fastener heads. On the other hand, high-visibility smooth,

monolithic surfaces intended to be painted or decorated surfaces in occupied buildings, ranging from single-family homes to monumental office buildings, may require higher levels of finishing prior to the application of the final decoration.

Lighting conditions, such as the type and angle of surface illumination, should also be considered in the selection of the appropriate level of finish. Natural light, as well as bright or low-angled light, tends to accentuate the view of the finished surface. Lighting conditions that have major impact on the finished surface are often referred to as “critical” lighting conditions. Walls and ceilings that are washed with light from windows or skylights, long corridors, large atriums, and large

surfaces flooded with strong artificial or natural light are examples of critical lighting areas.

The final decoration and its method of application are important factors in the selection of the level of finish. These decorations include flat or gloss paints, smooth or “textured” finishes, and the type and finish of wallcovering materials being specified.

“Texturing” is a regular or irregular pattern usually produced by applying diluted joint treatment compound or proprietary texture materials, including latex-base texture paint, to gypsum board with a prime coat. Texture material is applied by brush, roller, spray or trowel, or a combination of these tools, depending on the



Lighting is critical, especially when trying to achieve a Level 4 or Level 5 finish.

desired result. Textured walls are then painted with the desired finish; painting textured ceilings may not be necessary where sufficient texture material is

applied to completely conceal the gypsum board. When proprietary texture materials are used, priming may not be required. As with any proprietary material, the recommendations of the manufacturer of the material should be followed.

Gypsum board that is to be decorated should be coated with the appropriate drywall primer after the specified level of finish is applied and prior to the application of the final decoration. Drywall primers are special paints formulated to fill the pores and equalize absorption properties between gypsum board paper and joint compound. Where paint or texture is specified as the final decoration, a good quality, white, latex drywall primer formulated with higher binder solids,

applied undiluted, is typically specified. Enamel paints may require an alkali and moisture-resistant primer and a tinted enamel undercoat. The finish paint manufacturer should be contacted for specific recommendations. Where wallcoverings are specified, white, self-sizing water-base, "universal" (all purpose) wallcovering primers should be applied. These wallcovering primers are claimed to minimize damage if wallcoverings are subsequently removed, to bind poor latex paint, to allow hanging over glossy surfaces and existing vinyls, to hide wall colors and to be water washable.

As a general rule, critical lighting, gloss



In critical lighting areas, flat paints applied over light textures tend to reduce joint photographing.

paints (including semi-gloss), thin wallcoverings and laminates usually require higher levels of finish than either heavily textured surfaces that are subsequently painted, or surfaces that will be covered with heavily textured wallcoverings. Gyp-

sum board is an unfinished product, and the appropriate level of gypsum board finish must be specified to assure an acceptable finished product. Once all the factors have been determined and specifications written in specific terms, contractors can bid competitively.

L E V E L 0

Level 0 (zero) is an unfinished wall; it does not require any taping, finishing or accessories. This level is most often specified for temporary construction or in locations where the final decoration has not yet been selected.

L E V E L 1

With a Level 1 finish joints and interior

angles have tape set in joint compound, however, the tape and fastener heads are not required to be covered with compound. Although tool marks and ridges are acceptable with this level, the gypsum board surface is free of excess joint compound.

This level of finish is frequently specified in plenums above ceilings, in attics, in areas where the walls or ceiling are concealed, in building service corridors and other areas not normally open to public view. Because this level does not require accessories, the use of accessories to protect the gypsum board from damage in areas such as corridors and other areas with pedestrian traffic is left to the discretion of the designer and must be specified.

Level 1 provides some degree of sound and smoke control. For this reason, this level of finish is sometimes referred to as "fire-taping." However, where a fire-resistance rating is required for the gypsum board system, the specification should be consistent with the construction details described in the appropriate fire test or liking.

L E V E L 2

Level 2 requires all joints and interior angles to have tape embedded in joint compound and wiped with a joint knife, leaving a thin coating of joint compound over all joints and interior angles. Fastener heads and accessories are covered with a single coat of joint compound, and the

gypsum board surface is free of excess joint compound. Tool mark and ridges are acceptable in this level. For the purposes of this level, joint compound that is applied over the body of the tape at the time of tape embedment is considered a separate coat of joint compound and satisfies the conditions of Level 2.

Specifying Level 2 is appropriate where water-resistant gypsum backing board is used as a substrate for tile. It is also commonly specified in garages, warehouse storage or other similar areas where aesthetic appearance is not a primary concern.

L E V E L 3

A Level 3 finish requires that all joints and interior angles have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories are covered with two separate coats of joint compound. Joint compound is smooth and free of tool mark and ridges, and the gypsum board surface is free of excess joint compound. It may be necessary to smooth joint compound by sanding or by wiping with a damp sponge. Care must be exercised during sanding to ensure that the nap of the gypsum board paper is not raised.

Level 3 is typically specified in visible areas where heavy- or medium-texture (spray or hand applied) finishes or heavy-grade wallcoverings are specified as the final decoration. This level of finish is not recommended where smooth, painted surfaces or light to medium wall coverings are specified.

L E V E L 4

Level 4 requires joints and interior angles to have tape embedded in joint compound, two separate coats of joint com-

pound over all flat joints, and one separate coat of joint compound over all interior angles. Fastener heads and accessories are covered with three separate coats of joint compound. All joint compound should be smooth and free of tool mark and ridges, and the gypsum board should be free of excess joint compound.

This level should be specified where flat paints, light textures or wallcoverings are specified. In critical lighting areas, flat paints applied over light textures tend to reduce joint photographing, which is the shadowing of finished joints through the decoration. Gloss, semi-gloss and enamel paints are not recommended over a Level 4 finish. The weight, texture and

sheen of wallcoverings to be applied over this level 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 finishes is present. Unbacked vinyl wallcoverings are not recommended over this level of finish.

L E V E L 5

Level 5 is the highest quality finish. Level 5 requires that all joints and interior

Resources

Readers are encouraged to consult the following reference documents:

ASTM C 840, Standard Specification for Application and Finishing of Gypsum Board. ASTM, West Conshohocken, Pennsylvania.

GA-216-2000, Specifications for the Application and Finishing of Gypsum Board. Gypsum Association, Washington, D.C.

Contact one of the following associations for assistance or copies of this recommended specification:

Association of the Wall and Ceiling Industries—International
803 West Broad Street, Suite 600
Falls Church, Virginia 22046
Telephone: (703) 534-8300
Web Site: www.awci.org

Ceilings & Interior
Systems Construction Association
1500 Lincoln Highway, Suite 202
St. Charles, Illinois 60174
Telephone: (630) 584-1919
Web Site: www.cisca.org

Gypsum Association
810 First Street NE, Suite 510
Washington, DC 20002
Telephone: (202) 289-5440
Web Site: www.gypsum.org

Painting and Decorating
Contractors of America
3913 Old Lee Highway, Suite 338
Fairfax, Virginia 22030
Telephone: (703) 359-0826
Web Site: www.pdca.com

angles have tape embedded in joint compound, with two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over all interior angles. Fastener heads and accessories are covered with three separate coats of joint compound.

A thin skim coat of joint compound, or a proprietary material manufactured especially for this purpose, is trowel-applied to the entire surface. The skim coat fills imperfections in the joint finishing, makes smooth the paper texture and provides a uniform surface for decorating. Excess compound is immediately sheared off, leaving a film of skim coating compound completely covering the paper. The skim coating compound

that remains on the surface is very thin and is generally translucent. The surface should be smooth and free of tool marks and ridges, and the gypsum board should be free of excess joint compound.

This level of finish is highly recommended where gloss, semi-gloss, enamel or nontextured flat paints are specified or where severe lighting conditions occur. The Level 5 finish is the highest quality finish and 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.

By considering the final service and exposure conditions, and by incorporating the appropriate levels of finish into project

documents, contractors, architects and owners can better anticipate the final appearance of the decorated wall and ceiling system. Through improved knowledge and effective communication, the project goals of both the building professional and the client can be understood and achieved. 📄

About the Author

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