



## RECOMMENDED SURFACE TREATMENT FOR FINISHING GYPSUM BOARD TO ATTAIN A LEVEL 5 FINISH

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### 1. SCOPE

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The purpose of this document is to describe guidelines for determining the visual performance expectations that an acceptable surface treatment will impart to achieve a Level 5 gypsum board finish over a properly prepared Level 4 gypsum board surface.

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### 2. TERMINOLOGY

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The following definitions are applicable to this document.

**critical lighting (adj):** A condition whereby interior surfaces are flooded by natural or artificial lighting at an oblique angle; such as lighting from large expanses of windows, glass curtain walls, skylights, or surface-mounted light fixtures. - **ASTM**

**gypsum board (n):** The generic name for a family of sheet products consisting of a noncombustible core primarily of gypsum, with paper surfacing. – **ASTM C11**

**gypsum panel products (n):** The general name for a family of sheet products consisting essentially of gypsum. – **ASTM C11**

**inspection lighting:** Inspection lighting shall be representative of normal lighting conditions in intensity and location.

**normal lighting conditions:** Normal lighting conditions are described as those in place when the project is finished. This includes, but not limited to, design lighting (e.g. wall washers, spots and floods, etc) and natural lighting." - **PDCA**

**normal viewing position:** The normal viewing position shall be at any angle provided it is established at a minimum distance of five feet perpendicular from the surface to be viewed.

**properly painted surface (n):** A surface that is uniform in appearance, color, and sheen. It is one that is free of foreign material, lumps, skins, runs, sags, holidays, misses, strike-through, or insufficient coverage. It is a surface that is free of drips, spatters, spills, or overspray which a contractor's workforce may cause. Compliance to meeting the criteria of a "Properly painted surface" shall be determined when viewed without magnification at a distance of five feet or more under normal lighting conditions and from a normal viewing position. Note: A surface uniform in appearance, color, and sheen may not be achieved with a coat of primer or a single coat of topcoat. - **PDCA**

**skim coat (n):** A type of surface treatment that employs the use of joint compound to minimize surface variations.

**surface treatment (adv):** Any method of treating a gypsum panel substrate to minimize surface variations.

**topcoat (n):** The finish coat(s) of a coating system, formulated for appearance and/or environmental resistance. - **PDCA**

**uniform surface (n):** A gypsum panel substrate that exhibits the same visual appearance properties over the entire surface area when decorated.



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## 3. GUIDELINES FOR DETERMINING AN ACCEPTABLE SURFACE TREATMENT

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The following performance descriptions have been established as a guide.

- 3.1 Conditions for Installation
- 3.2 Materials
- 3.3 Visual Performance Expectation

### 3.1 Surface Treatment - Conditions for Installation

- 3.1.1 Surface treatment shall be installed over a properly prepared gypsum panel substrate. The level of gypsum panel finish should meet the minimum criteria of a Level 4 finish as described in; GA-214 "Recommended Levels of Gypsum Board Finish", NWCB "Recommended Levels For Finishing Of Gypsum Board", and/or equivalent.
- 3.1.2 Surface treatment will be applied over unpainted properly prepared gypsum panel substrates only.
- 3.1.3 Leave sufficient material that minimizes surface variations over joints, fasteners, trims, and gypsum board surface in accordance to the jobsite standard.
- 3.1.4 During the construction phase, jobsite conditions should be maintained in accordance with Drywall Finishing Council document titled, "Interior Job Condition Specification For The Application of Drywall Joint Compounds, Drywall Textures, And Paint / Coatings".
- 3.1.5 A jobsite standard of the finishing system, surface treatment, and decoration of gypsum panel substrate shall be constructed for the purpose of establishing a level of visual appearance deemed acceptable.
- 3.1.6 The jobsite standard shall be constructed in advance of work.
- 3.1.7 The constructed jobsite standard shall be representative of the wall and ceiling configuration typically found at the jobsite.

### 3.2 Surface Treatment - Materials

- 3.2.1 All surface treatment materials should be compatible with materials in the underlying properly prepared gypsum board substrate, and provide an acceptable surface to receive decoration.
- 3.2.2 Any material may be used that meets the visual performance expectations of a surface treatment applied over a properly prepared gypsum panel substrate.
- 3.2.3 Surface treatment materials may be applied by any method deemed practical and/or recommended by the manufacturer.

### 3.3 Surface Treatment - Visual Performance Expectation

- 3.3.1 Provide a finished surface that is suitable for decoration.
- 3.3.2 Provide a uniform decorated surface when viewed without magnification under occupancy conditions with normal lighting conditions and from a normal viewing position. Consideration shall be given to window treatment and/or any other decorative finishes that could affect lighting and viewing.



**3.3.3** Inspection lighting shall be representative of normal lighting conditions in intensity and location.

**3.3.4** Achieves a level of visual appearance as established by the approved jobsite standard.

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## 4. COMMENTS

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**Environmental Conditions** - Refer to Drywall Finishing Council recommendations in document titled, "Interior Job Condition Specifications for The Application of Drywall Joint Compounds, Drywall Textures, and Paint/Coatings".

**Environmental Control** - Temperature, humidity, and airflow should remain constant, and as close to occupancy conditions as possible. The potential for finishing and decorating problems is minimal when job environmental conditions match occupancy environmental conditions. Controlling and maintaining environmental conditions is key. Changes and/or fluctuations in temperature, humidity, and airflow can have a profound adverse effect.

**Environmental Limitations / Considerations** – All products shall be applied and maintained in accordance with manufacturers recommendations.

**Gypsum-Board Preparation** - To achieve the desired effect of texture finish over gypsum wallboard, the gypsum board substrate must be finished appropriately. Refer to Gypsum Association GA-214 titled "Recommended Levels of Gypsum Board Finish", NWCB "Recommended Levels For Finishing Of Gypsum Board", and/or equivalent.

**Intent** – This performance description is designed to minimize decorating problems that can occur due to surface variations between the gypsum panel surface and areas finished with joint compound.

**Installation** - It is not the intent of this document to direct, specify and/or limit installation of surface treatments to a particular trade.

**Level of Paint Finish** - A DWFC Level 5 paint finish is recommended. This system when combined with the Level 5 gypsum board finish is the most effective method to minimize joint and fastener photographing and provides the most uniform final finish. Refer to Drywall Finishing Council document titled, "Recommended Levels of Paint Finish Over Gypsum Board".

**Project Standard Specification** - A project standard of the approved wall and/or ceiling configurations shall be established to provide a visual sample constructed, finished, and decorated in accordance with applicable project specifications. As a guideline, refer to PDCA P5 titled, "Benchmark Sample Procedures For Paint and Other Coating Systems".

**Surface Smoothness** - Because the joints and fasteners must be concealed with fill and finish coats of joint compound, it is impossible to achieve a finished surface that is a flat plane. Instead, the joints and fasteners are finished with graduated arcs designed to prevent recesses or ridges that result in distinct shadows in critical light.



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## 5. RESOURCES

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**ASTM.** C11 Standard Terminology Relating to Gypsum and Related Building Materials and Systems, American Society for Testing and Materials, West Conshohocken PA

**ASTM.** C840 Standard Specifications for Application and Finishing of Gypsum Board. American Society for Testing and Materials, West Conshohocken, PA

**DWFC.** Interior Job Condition Specifications For The Application of Drywall Joint Compounds, Drywall Textures, and Paint/Coatings. Drywall Finishing Council, Incorporated. [www.dwfc.org](http://www.dwfc.org)

**DWFC.** Method for Inspecting Joint Treated Gypsum Panel Surfaces, Drywall Finishing Council, Incorporated. [www.dwfc.org](http://www.dwfc.org)

**DWFC.** Recommended Specification for Preparations of Gypsum Board Surfaces Prior To Texture Application, Drywall Finishing Council, Incorporated. [www.dwfc.org](http://www.dwfc.org)

**DWFC** Recommended Levels of Paint Finish Over Gypsum Board. Drywall Finishing Council Incorporated. [www.dwfc.org](http://www.dwfc.org)

**FSCT.** Coatings Encyclopedic Dictionary. Federation of Societies for Coatings Technology, Blue Bell, PA

**GA.** GA-214, Recommended Levels of Gypsum Board Finish. Gypsum Association, Washington DC

**GA.** GA-216, Application and Finishing of Gypsum Panel Products. Gypsum Association, Washington DC

**PDCA.** Glossary of Terms. Painting and Decorating Contractors of America, Fairfax VA

**PDCA.** Standard P4, Responsibilities for Inspection and Acceptance of Surface Prior to Painting and Decorating. Paint and Decorating Contractors of America.

**PDCA.** Standard P5. Benchmark Sample Procedures for Paint and Other Coating Systems. Painting and Decorating Contractors of America, Fairfax VA

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