



# GYPSUMATION

Supplement to *Construction Dimensions*

FEBRUARY 2008

## Gypsum Association Updates Technical Documents

The Technical Committee of the Gypsum Association has recently reviewed and revised three of the Association's technical documents. The updated documents are: GA-224, Installation of Predecorated Gypsum Board; GA-226, Application of Gypsum Board to Form Curved Surfaces; and GA-229, Shear Values for Screw Application of Gypsum Board on Walls.

GA-224, Installation of Predecorated Gypsum Board, provides essential information regarding predecorated gypsum board, including the applicable ASTM and other standards; definitions of terms used throughout the document; delivery, identification, handling, and storage measures; favorable environmental conditions; materials used in building systems that incorporate predecorated gypsum board; and proper application methods and procedures. The document also provides additional application, maintenance, and repair information in its appendices. The revised document includes new reference standards and updated metric conversions.

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## Gypsum Association Withdraws Technical Document on Veneer Plaster



The Gypsum Association has ceased distribution of technical document GA-151, Veneer Plaster, as of December 1, 2007.

Following review of the document, the Association's Technical Committee concluded that current consensus standards adequately addressed the technical application issues involved with veneer plaster application and that production of the Association document had become redundant. Users seeking specific information on veneer plaster application should reference ASTM C 843, Application of Gypsum Veneer Plaster.

At the suggestion of the Technical Committee, the Association's Promotion Committee has undertaken the task of developing and producing an informational publication that will explain the features and benefits of veneer plaster systems without addressing the specific qualities expected in a technical publication. The new publication is expected to be released by the Gypsum Association in 2008.

## Gypsum Association Renews Evaluation Report



The Gypsum Association has submitted evaluation report ESR-1338, Gypsum Wall and Ceiling Assemblies and Gypsum Board Interior and Exterior Applications, to ICC Evaluation Service, Inc. (ICC-ES) for a two-year renewal. ESR-1338 verifies that various gypsum panel products and building systems meet the requirements of both the International Building Code (IBC) and the International Residential Code (IRC).

ESR-1338 covers the application of the gypsum board products manufactured to ASTM C 1396, Standard Specification for Gypsum Board, including: water-resistant gypsum backing board; gypsum wallboard; exterior gypsum soffit board; gypsum sheathing board; gypsum ceiling board; and others. ESR-1338 also contains a primary reference to GA-600, Fire Resistance Design Manual, that facilitates the use of the generic fire-resistant and sound-attenuating systems in the manual.

It is intended that the revised version of ESR-1338 will no longer include provisions that previously addressed compliance with the Uniform Building Code (UBC).

Interested parties are advised to regularly check the Association's website at [www.gypsum.org](http://www.gypsum.org) for the announcement of the release of the revised version of ESR-1338. Upon its release, the report will be available for free download from the above mentioned website, where the current edition is presently available. 🔥

## Gypsum Association Updates Video

The Gypsum Association is in the final stages of updating its informational video "The Miracle Mineral." Originally released in 1993, the video's script and much of its footage has been updated to modernize the final product. The video describes the many properties of gypsum that make it the most efficient and cost effective material for sheathing, roof underlayment, firewalls, shaftwalls and many interior surfaces.

Viewers are shown every stage of the process of using gypsum as a building material, from mining the gypsum ore, crushing and refining the ore, manufacturing gypsum panel products (including archival black and white footage from the post war era), to attaching and finishing the panels. Viewers are also shown how versatile gypsum products are, in that they can be applied to a variety of substrates in all but the most severe of weather conditions with minimal equipment and easily acquired skills.

Also shown are clips of how well building systems protected with gypsum products resist the spread of fire compared to unprotected building systems. Similarly, the Miracle Mineral illustrates how gypsum products provide effective and affordable sound barriers between individual rooms, dwelling units in multi-family housing, and work areas.

Anyone evaluating different building materials or anyone curious about how gypsum begins as a plain rock and is processed into a building material will find this video both entertaining and informative. The Gypsum Association expects to offer DVD versions of the Miracle Mineral by this summer. 🔥



*(Gypsum Association Updates Technical Documents, continued from page 1)*

GA-226, Application of Gypsum Board to Form Curved Surfaces, describes proper materials and procedures necessary for both dry and wet bending of gypsum board to form either convex or concave curved surfaces. The document also discusses the application of gypsum board in archways and techniques for finishing gypsum board once it has been used to create a curved surface. The document has been reviewed by the Association's Technical Committee and reformatted to conform with the style of more recent Association technical publications.

GA-229, Shear Values for Screw Application of Gypsum Board on Walls, presents shear values achieved using a variety of gypsum board thickness, screw types, and screw patterns. The document also provides conclusions reached after extensive testing of the different attachment configurations. This document has also been reviewed by the Association's Technical Committee and reformatted to conform with the style of more recent Association technical publications.

As of January 2008, copies of all three documents will be available for free download from the Association's website: [www.gypsum.org](http://www.gypsum.org).

## Technical Hotline



Q: Can a fire-rated ceiling assembly incorporate a suspended membrane?

A: Yes, and there are two ways to approach the situation.

Gypsum Association publication GA-600-2006, "Fire Resistance Design Manual," lists several systems that were fire tested with a membrane suspended from the structural framing. Specific examples include FC 1105; FC 1110; and FC 3150 among others. The simple solution is to use one of the systems that were tested with a suspended membrane, while accounting for the guidance provided by General Explanatory Note #19 on page 9 of the Manual. Note # 19 allows a system fire tested at less than 36 inches total depth to be installed with a total depth greater than 36 inches.

The other alternative is to modify a system that was fire tested with a membrane installed directly to the structural framing members based on the language in General Explanatory Note #18 also on page 9. The note allows "systems tested with metal furring channels attached directly to the bottom chords of steel beams, bar joists, or wood trusses to be suspended." It describes one possible method for suspending the membrane.

Q: If a fire-resistance rated system was tested using mineral fiber insulation, may glass fiber insulation be used in its place to maintain the fire-resistance rating?

A: In general, no. Mineral fiber insulation of a given thickness generally carries a higher fire-resistance rating than the same thickness of glass fiber insulation; therefore, unless the system was specifically tested with glass fiber material, equivalent thicknesses of the two materials may not be interchanged. On the other hand, mineral fiber insulation may be substituted for glass fiber in most instances.

*When you have  
technical questions just  
contact the Gypsum  
Association!*

**Phone: (202) 289-5440**  
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# ESSENTIALS

## FROM THE GYPSUM ASSOCIATION

### **FIRE RESISTANCE DESIGN MANUAL GA-600-2006 18th Edition**

Includes fire-resistance ratings for over 370 gypsum protected wall, ceiling, roof, column, beam girder, and truss systems. Over 40 system designs have been added since the previous edition, including several new floor- and roof-ceiling systems and double-stud steel partition designs. Referenced by the International Building Code, Uniform Building Code, and the Building Construction and Safety Code, NFPA 5000. Also referenced in major jurisdictions in the United States such as Florida, Chicago, Los Angeles, and New York City. Recognized in major jurisdictions in Canada. 158 pages.

### **FIRE RESISTANCE DESIGN MANUAL GA-600-2003 17th Edition**

Includes fire-resistance ratings for over 325 gypsum-protected wall, ceiling, roof, column, beam, girder, and truss systems. Allows the user to quickly and easily determine essential characteristics of a wide range of fire-resistive gypsum systems classified according to use and fire resistance. STC and IIC ratings for numerous systems are included. Also includes: 2-hour wood- and steel-frame floor/ceiling systems; new wood I-joist floor/ceiling and 100% load-bearing partition systems; new proprietary pitched chord truss systems; over 10 new steel column protection systems. 142 pages.

### **APPLICATION AND FINISHING OF GYPSUM PANEL PRODUCTS GA-216-2007**

Describes the most up-to-date industry and building code recommendations for the proper installation and finishing of gypsum panel products, including related accessories, over a variety of substrates and framing. An invaluable resource for drywall contractors. 18 pages.

### **DESIGN DATA - GYPSUM BOARD GA-530**

Our most complete collection of current Gypsum Association publications containing the most recent edition of the *Fire Resistance Design Manual* (GA-600) as well as GA-214, GA-214-M, GA-216, GA-220, GA-221, GA-222, GA-223, GA-224, GA-225, GA-226, GA-229, GA-232, GA-234, GA-235, GA-236, GA-253, GA-254, GA-276, GA-290, GA-291, GA-406, GA-510, GA-515, GA-610, GA-618 and ICC-ES ESR-1338.

### **RECOMMENDED LEVELS OF GYPSUM BOARD FINISH (GA-214) RESOURCES**

*Levels of Finish* resources provide information on the 5 levels of gypsum board finish and will enable you both to anticipate the final appearance of decorated wall and ceiling systems and to achieve a specified finish. Resources cover factors to be considered, terminology, where each level should be used, and the minimum requirements for each level. Featured resources include GA-214-VS, an 11 minute *Levels of Finish* video containing Spanish narration, and GA-214-CCD, an instructional CD-ROM (English).

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### **FREE MATERIALS AND RESOURCES**

- Please send me the CD-ROM, *Recommended Levels of Gypsum Board Finish* (GA-214-CCD).
- Please send me a *Catalog of Publications, Resources, and Training Materials*.

### **GYPSUM ASSOCIATION MEMBERSHIP 2008**

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