



GYPSUM ASSOCIATION

810 First Street NE, # 510 Washington, DC 20002

GYPSUMATION

SUPPLEMENT TO **CONSTRUCTION DIMENSIONS**/NOVEMBER 2003

THE ULTIMATE SOURCE FOR GYPSUM INFORMATION, GA-530

As a drywall contractor you are constantly bombarded with information. Collecting and collating that information into a resource where it can truly assist you in the conduct of your business is a difficult but necessary task.

The Gypsum Association makes this daunting problem simple when information on the correct use of gypsum board and related materials is concerned. Our "Design Data Gypsum Board" (GA-530) binder contains a complete copy of every current Gypsum Association publication, all in a handy three-ring binder. It is an inexpensive and simple way to make sure that you have the most up-to-date information on gypsum board application and use.

Included in the Design Data binder is a copy of the latest edition of the three most notable publications produced by The Association: *Fire Resistance Design Manual*, GA-600; *Recommended Levels of Gypsum Board Finish*, GA-214; and *Application and Finishing of Gypsum Board*, GA-216. The binder also includes a single copy of all of the one- and two-page Association-produced documents that are typically sold only in multiples of 50 copies or more; a list that includes such helpful items as *Repair of Fire-Rated Gypsum Board Systems*, GA-225; *Shear Values for Screw Application of Gypsum Board on Walls*, GA-229; and *Joint Treatment Under Extreme Weather Conditions*, GA-236 - the last document incorporating a useful drying-time table for the application of joint treatment materials.

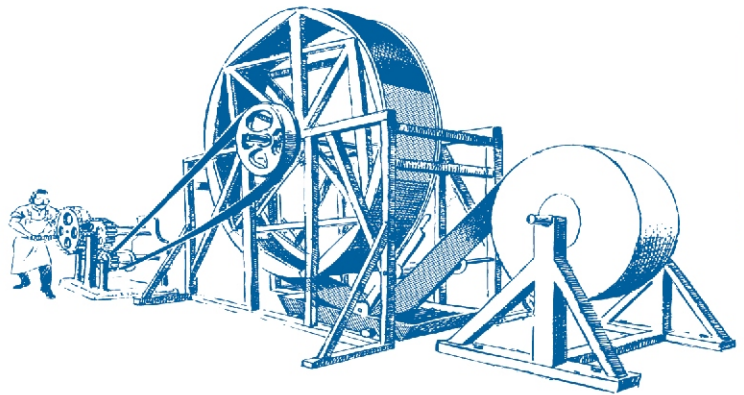
To obtain a copy of the Design Data binder, use the special order form on the back page of this edition of *Gypsumation* or order on our Web site at: www.gypsum.org.

THE VIEW FROM FIRST STREET

Jerry A. Walker
Executive Director

No story about the invention and evolution of gypsum board would be complete without reference to the contribution of entrepreneur and inventor, Augustine Sackett. Although the exact dates may not be the same from all historical accounts, it is generally acknowledged that in 1890, Mr. Sackett and a Mr. Fred L. Kane improved on a product that Mr. Sackett invented around 1884 that was made of coal tar pitch sandwiched between straw paper. The product was originally used in the construction of packing crates but attempts were also made to use this material to finish walls and ceilings. Apparently, such application was less than satisfactory, so Mr. Sackett decided to develop a product that could be used on walls and ceilings that would accept a variety of decorations (i.e., paint, wallpaper, etc.).

The story is that Mr. Kane suggested substituting manila paper for the straw paper and using plaster of Paris (i.e., gypsum) instead of pitch. This was the beginning of "plasterboard;" Mr. Sackett was awarded a patent for this product in 1894. By the time the U.S. Gypsum Company bought out Mr. Sackett's plasterboard business in 1909, it is reported that Augustine Sackett was producing some 525 million square feet of his innovative product annually.



Mr. Sackett also invented a "soaking" belt method to aid in his manufacturing process; this manufacturing process became the industry standard for producing gypsum board for several years. Also for many years after purchasing Mr. Sackett's

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INSTALLATION OF WATER-RESISTANT GYPSUM BOARD

Water-resistant gypsum backing board (ASTM C 630/ C 1396), commonly called “green board” because of the color of its face paper, is specially designed and formulated to serve as a base for ceramic and similar tile in areas subject to occasional water or moisture such as tub and shower enclosures, kitchens, and utility rooms. The core, face paper, and back paper are formulated and manufactured to minimize water absorption. Water-resistant backing board should not be used in critical areas of water exposure such as around hot tubs, steam rooms, indoor swimming pools, saunas, or gang showers.

Since 2000, member companies of the Gypsum Association have recommended that a skim coat of adhesive complying with ANSIA 136.1, *American National Standard for Organic Adhesive for Installation of Ceramic Tile*, Type I or Type II, be applied over all green board surfaces that have been finished with joint compound and are to receive ceramic or plastic tile, or plastic finished wall panels. The adhesive, known in the tile installation trade as organic adhesive or mastic, must be allowed to cure before the application of the tile begins. This skim coat provides a water-resistant membrane over the joint treatment materials.

This recommendation was added to GA-216, *Application and Finishing of Gypsum Board*, to be consistent with the published recommendations of the ceramic tile industry. The new recommendation more completely protects the joint treatment applied to the gypsum board substrate and applies to both treated joints and to fasteners that have been finished with joint treatment material.

The 2000 edition of GA-216 also specifies that joint treatment applied to gypsum board that is used as a base for ceramic or plastic tile is to be finished to a minimum level 2 as described in *Recommended Levels of Gypsum Board Finish*, GA-214. Installing the joint treatment to a level 2 finish ensures that the tapered edges of the gypsum board are filled flush with the field of the board to provide a surface that is flat and free of ridges for the application of tile. A level 2 finish requires the joint tape to be completely embedded in and covered by the joint treatment material and the joint treatment to be wiped smooth with a trowel or similar application tool.

Water-resistant gypsum board is a cost-effective substrate with an excellent history of performance. As with all wet area materials, periodic maintenance of grout, caulking, and sealants at penetrations is required to maintain tile system integrity. Failure to properly maintain these essential system components can result in water intrusion and subsequent damage to the system. ✓

FREE CD-ROM

Learn about levels of finish on your computer via CD-ROM with the Gypsum Association's GA-214-CCD, *Recommended Levels of Gypsum Board Finish*. This FREE CD-ROM on the 5 levels of gypsum board finish provides information that will enable you to anticipate the final appearance of decorated wall and ceiling systems and to achieve a specified finish. The CD covers factors to be considered, terminology, where each level should be used, and the minimum requirements for each level. Use of the CD requires Windows 98 or later, a CD-ROM drive, a sound card, and speakers.

If you need levels of finish information in Spanish, the Gypsum Association has created the video GA-214-VS, a Spanish language version of the *Recommended Levels of Gypsum Board Finish* video. GA-214-VS is visually identical to its English language counterpart, and it contains the same valuable information. However, the Spanish version is narrated in Spanish so that it can be easily understood by Spanish-speaking viewers. GA-214-VS costs only \$7.95 per copy!

Both of these Levels of Finish resources can be ordered using the order form on page 4 of the newsletter or via our Web site at www.gypsum.org. ✓

*(The View From First Street,
Continued from page 1)*

company, USG sold a product known as “Sackett Board.” “Gypsum board” is often called “drywall,” “plasterboard” (especially in Canada and Europe), and “wallboard;” these terms go back to the time when gypsum board was first used and were intended to distinguish the “dry” process from the “wet” process of plastering, which was the dominant method of finishing interiors of structures at that time. Mr. Sackett passed away in 1914, but left a legacy unmatched by most.



**VISIT THE GYPSUM ASSOCIATION WEB SITE AT
WWW.GYPSUM.ORG**

We're Your Gypsum Board Information Resource!

NEW DOCUMENTS

The Gypsum Association Ad Hoc Mold & Moisture Committee has completed two new publications: *Assessing Water Damage to Gypsum Board* (GA-231-03) and *Guidelines for Prevention of Mold Growth on Gypsum Board* (GA-238-03).

GA-231 discusses assessing the need for replacement of gypsum board and recommendations for drying conditions. GA-238 includes guidelines for transportation and receiving of gypsum board, as well as information on storage and handling, application, and maintenance following application. Both documents also list sources for additional information.

Either document is available for download on the Gypsum Association Web site at: www.gypsum.org. ✓

DISPOSAL OF WASTE GYPSUM BOARD

Helping sustain a quality ecosystem is an obligation of business and industry; members of the gypsum board manufacturing industry support the need to protect and maintain the environment for future generations. For example, in order to reduce the plant-generated waste that formerly went to landfills, manufacturers now recycle that waste back into the manufacturing process, along with some new construction waste.

Gypsum board waste does not normally create problems in well-constructed and properly-managed landfills and can be disposed of safely in these sites. When properly handled, new construction gypsum board waste is generally recyclable; however, the process of recycling new construction waste is driven by the labor-intensive economics of separating and hauling the materials, charges by recyclers (tipping

fees), etc. In order for a recycling program to be successful, it must be reinforced by economic incentives. The gypsum board manufacturing industry is committed to the continuing use of recycled material in the manufacturing process as well as promoting alternative uses for waste materials.

Waste from demolition, renovation, and remodeling is more difficult to recycle into new gypsum board. While the gypsum board itself may be recycled, the accessory materials, such as paint, joint treatment compound, fasteners, metal studs, wire, etc., usually contain substances that can complicate or create a barrier to the recycling process.

For more information on the gypsum board industry's commitment to the environment and recycling, visit our Web site at www.gypsum.org. ✓

TECHNICAL HOTLINE

Question: I have noticed that General Explanatory Note 17 in GA-600, *Fire Resistance Design Manual*, was modified when the current edition of the FRDM was released. Can you explain why the change was made?

Answer: General Explanatory Note 17 addresses the installation of cross bracing - also known as gusset pieces - in a chase wall. It was modified in the 17th edition of the FRDM that was released in April 2003.

Specifically, Note 17 now reads as follows: "Within design limitations, the distance between parallel rows of studs, such as in a chase wall, shall be permitted to be increased beyond that tested. When stud cavities in walls constructed of parallel rows of steel studs exceed 9 ½ inches and cross bracing is required the cross bracing shall be fabricated from steel studs." The

first sentence of the note has been standard language in the FRDM for many years. Sentence two was added with the publication of the 17th edition.

The cross bracing material to be used in a specific system is generally prescribed by the system's fire test description. In most systems, either gypsum board pieces or metal framing members, installed at vertical third points, may be used as cross bracing. However, we felt that because the systems had actually been tested with the 9 ½ inch deep cavity and language had been added to a handful of test reports specifying steel studs as cross bracing when the cavity exceeded 9 ½ inches in width, the note and the descriptions of the affected systems should be modified accordingly. This also addresses the practical issues involved in spanning deeper cavities with 12 inch wide, simply supported pieces of gypsum board.

Gypsum board is still permitted in and recommended for use as cross bracing in systems where the cavity depth does not exceed 9 ½ inches. Chase wall systems contained in the FRDM define the required cross bracing material to be used with each system. ✓

When You Have Technical Questions... Phone: 202-289-5440 Fax: 202-289-3707 Web site:
Just Contact The Gypsum Association! 8:30 a.m. - 5:00 p.m. ET 24 hours a day www.gypsum.org

ESSENTIALS FROM THE GYPSUM ASSOCIATION

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: New 2-hour wood- and steel-frame floor/ceiling systems; new wood I-joint floor/ceiling and 100% load - bearing partition systems; new proprietary pitched chord truss systems; over 10 new steel column protection systems.**

FIRE RESISTANCE DESIGN MANUAL GA-600-2000 16th Edition

Includes fire-resistance ratings for over 300 gypsum-protected wall, ceiling, column, beam, girder, and truss systems, including many systems not in the previous editions. Referenced by major model building codes, including the supplement to the 2000 International Building Code, and in the code documents of major jurisdictions in the United States and Canada. Also included are over 15 new systems for column protection and tube columns, new 1- and 2-hour pre-engineered metal building exterior walls, 14 new proprietary systems, a new index to systems based on STC ratings, STC and IIC ratings for numerous systems, and height limitations for nonload-bearing partitions. 131 pages.

APPLICATION AND FINISHING OF GYPSUM BOARD GA-216-2000

Describes the most up-to-date industry and building code recommendations for the proper installation and finishing of gypsum board, including related accessories, over a variety of substrates and framing. An invaluable resource for drywall contractors. 16 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-230, 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, ICBO ES ER-1632 and ICBO ES ER-1874.

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).

To Order, Fax or Mail This Order Form To:

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_____ Copies of <i>RECOMMENDED LEVELS OF GYPSUM BOARD FINISH GA-214-VS</i>	x \$ 7.95 each = _____

Prices include shipping charges and are effective through 2003. Sales tax will be added to all orders shipped to a Washington, DC, address.

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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 2003 *Catalog of Publications, Resources, and Training Materials*.

GYPSUM ASSOCIATION MEMBERSHIP 2003

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