“WACHUWANNANO” Q & A

“WACHUWANNANO” is a question and answer feature that answers reader’s questions on technical aspects of the wall and ceiling industry. AWCI’s Technical Staff is available through this column to be your personal consulting firm to answer your specific technical questions.

If you need more information or more details to help you do your job better, just tell us WACHUWANNANO and we’ll get back to you in an upcoming issue.

Send your questions to the AWCI Technical Department, 1600 Cameron Street, Alexandria, VA 22314-2705, or fax them to (703) 684-2935.

Glass Reinforced Gypsum

Q: I found the recent series of articles on Glass Reinforced Gypsum to be very informative. Although I have been using these materials for some time, I am still experiencing problems in writing them into my specifications, particularly where tolerances are concerned. What tolerances should I be using and what dimensions or measurements have critical tolerances? Also, where can I find more information on the testing and properties of GRG products?

A: Since GRG products are largely manufactured to specific orders, it is not easy to establish a fixed set of manufacturing tolerances which can be applied “across the board” to every component. Each individual component has its own set of tolerances that work for its specific end use. Tolerances should be agreed upon with the manufacturer at the time the components are designed or the order is placed.

The more difficult, and probably the more important, issue to address is the method or methods to use in measuring some of the dimensions. As you are aware from having worked with GRG components in the past, this not only requires measurements of dimensions with which you are familiar, such as lengths, widths and thicknesses, but it can frequently include measurements of dimensions which are not so straightforward. These would include straightness, squareness, curvatures, and chords and radii. A special committee of Glass Reinforced Gypsum manufacturers and contractor representatives was established in 1990 and has developed an informative and useful guide to GRG which describes in detail the measuring methods for these more elusive dimensions (available from AWCI.). Also included are guidelines for including tolerances on the shop drawings and identifying those dimensions where the tolerances are critical.

Glass Reinforced Gypsum products were first introduced into the United States and Canada in the late 1970s. The industry experienced quite a bit of growth during the early and mid 1980s. There are currently a number of manufacturers, and, as you know from the series of GRG articles, a couple of different methods of manufacture.

Unlike plastic materials, GRG has superior fire retardant properties. It is fairly easy to install, available in a huge variety of shapes, and is fairly lightweight when compared to pre-cast plaster.