

## GA-230-2019 VAPOR RETARDER OVER WATER-RESISTANT GYPSUM BACKING BOARD

Water-resistant gypsum backing board (see ASTM C1396, *Standard Specification for Gypsum Board*) is designed to be used as a base for the application of ceramic or plastic wall tile or plastic finished wall panels in wet areas (See Notes 1 and 2). Water-resistant gypsum backing board shall not be used where there will be direct exposure to water or continuous high humidity conditions. Such areas include but are not limited to saunas, steam rooms, gang shower rooms, and indoor pools.

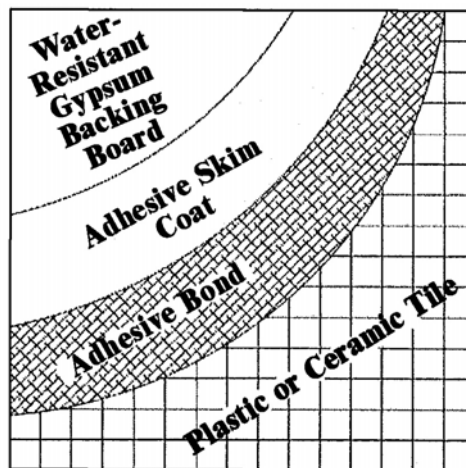
To avoid the potential for trapping water between two vapor retarders, water-resistant gypsum backing board used as a base for tile in wet areas shall not be applied over a vapor retarder. Where water-resistant gypsum backing board is the substrate for ceramic tile on exterior walls requiring a vapor retarder, the vapor retarder should be created on the face of the gypsum board substrate as follows:

Apply a uniform skim coat, not less than 1/32" (0.8 mm) thick, of water base Type I organic adhesive (ANSI A108-A118-A136.1 Installation of Ceramic Tile) over the water-resistant gypsum backing board. Allow the skim coat to set or cure before applying the adhesive bond coat and installing the tile.

Tests by an independent testing laboratory conducted in accordance with ASTM E96 Desiccant Method, determined an average water vapor transmission rate of 0.29 perms (17 ng/Pa·s·m<sup>2</sup>) for this application method.

To maintain tile system integrity, periodic maintenance of grout, caulking, and sealants at penetrations is required. Failure to properly maintain these essential system components can result in water intrusion and subsequent damage to the system.

On exterior walls where the tile covers less than the full wall surface, a vapor retarder can be provided on the interior surface by applying a vapor retarder paint or primer over the area not covered by the tile. Apply the vapor retarder paint or primer in accordance with the paint manufacturer's recommendations.



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**NOTE 1:** Consult gypsum panel product manufacturer for recommendations regarding the use of specific gypsum panel products as a base for tile in wet areas.

**NOTE 2:** The use of water-resistant gypsum backing board as a base for tile in wet areas is regulated by local codes. Consult local building codes for requirements.

#### **GYPSUM ASSOCIATION MEMBER COMPANY LIST 2019**

AMERICAN GYPSUM COMPANY LLC  
CERTAINTEED GYPSUM CANADA, INC.  
CERTAINTEED GYPSUM, INC.  
CGC INC.

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