



GYPSUM ASSOCIATION
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Installation Procedure

FOR GYPSUM WALLBOARD IN BATHROOMS

In Preparation for the Adhesive Application of Ceramic, Plastic or Metal Tile

Since free water can damage wallboard and framing members in bathroom installations which are surfaced with tile adhesively applied, the Gypsum Association recommends the following procedure as a preventative measure. It has been included as a requirement in the Constructions Standards of the Federal Housing Authority.

FRAMING - All framing around tub enclosures and shower stalls should permit the inside lip of the tub, prefabricated receptor or pan to be flush with the outside face of the wallboard. This may require furring of the studs behind the wallboard or the fixture as shown in accompanying illustrations.

WALLBOARD INSTALLATION - Use full size sheets to eliminate butt joints. The bathroom is one place where scraps of wallboard should never be used. Start with the paper bound edge of the wallboard down over the tub, receptor or pan...and allow 1/4" clearance between the wallboard and the fixture. Never start with a cut edge here.

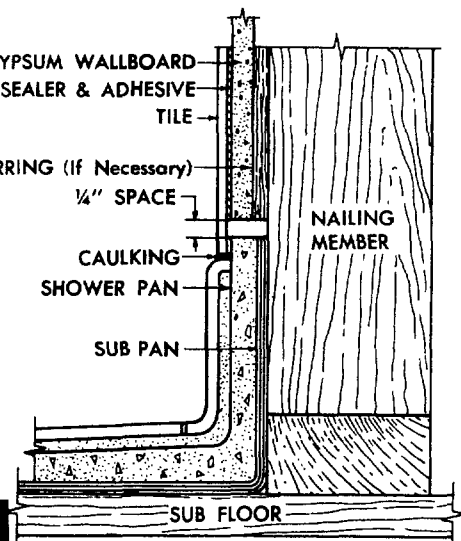
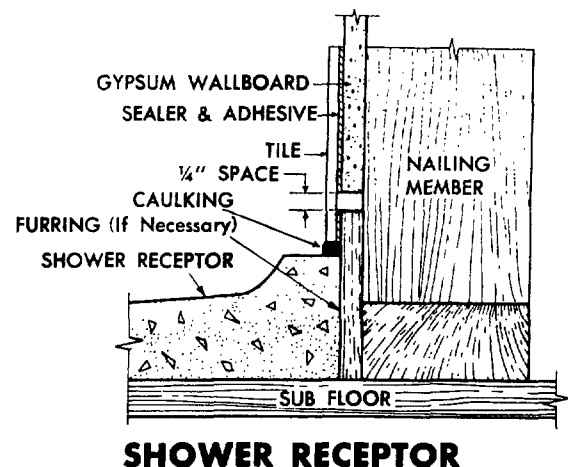
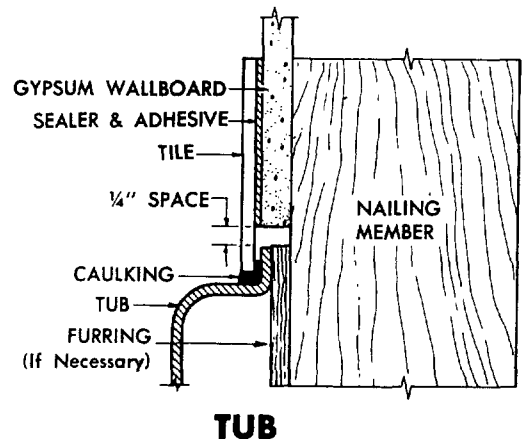
To properly position the wallboard above the fixture, insert a 1/4" thick temporary wood spacer or nails 1/4" above fixture. After the wallboard is secured to the studding, the temporary spacer must be removed to prevent capillary action of water.

All joints should be treated with tape and two coats of joint cement - adhesive.

SEALING - Now we come to one of the most important steps of all. Before applying the tile or tile adhesive, apply a waterproof sealer to the entire surface of the gypsum wallboard and all edges of cutouts made for pipes or fixtures. It is extremely important that the entire surface be waterproofed. Use a rubber base or varnish type sealer.

If a waterproof tile adhesive is used as a sealer, it should be applied in a separate operation 1/16" thick, independent of application used for holding the tile.

With these steps completed, the wallboard is now ready for the application of adhesive to receive the bathroom tile. Once installed, the tile is grouted in the standard manner.



PLAINTIFF'S EXHIBIT

GP-998

SHOWER PAN

SGP 0003156

Form No. 8501

RECOMMENDED SPECIFICATIONS

For Application of Gypsum Wallboard to Receive Ceramic, Plastic or Metal Tile or Plastic Finished Wall Panels by Adhesive Application

A. GENERAL

All work shall be performed in accordance with the requirements of American Standards Association, Standard Specification for Gypsum Wallboard Finishes A97, except as otherwise specified.

B. FRAMING

1. Framing members shall be plumb and true. If necessary, fur out studs around tub enclosures and shower stalls so that inside lip of the tub, prefabricated receptor or subpan will be flush with the face of the gypsum wallboard. The top of such furring shall be flush with the upper edge of receptor, pan or tub.
2. Appropriate blocking, headers or supports shall be provided for tub, plumbing fixtures, soap dishes, grab bars, towel racks, etc., as may be required.
3. Where surfacing walls with ceramic tiles over $\frac{1}{4}$ " thick, suitable blocking shall be installed between all studs if $\frac{3}{8}$ " gypsum wallboard is to be used on studs spaced 16" o.c. or $\frac{1}{2}$ " or $\frac{5}{8}$ " gypsum wallboard on studs spaced more than 16" o.c. One row of blocking shall be located approximately 1" above the top of the tub or receptor and another row at the mid point between the tub and ceiling.

C. MATERIALS

1. Gypsum wallboard $\frac{3}{8}$ ", $\frac{1}{2}$ " or $\frac{5}{8}$ " in thickness, shall comply with the requirements of ASTM Designation C36, for Gypsum Wallboard. Insulating or foil surface wallboard shall not be used.

2. Materials for treating joints and concealing nail-heads shall be as recommended by the manufacturer of the gypsum wallboard.

3. The surface sealer shall be either the waterproof adhesive recommended by the manufacturer of the surfacing material or a waterproof sealer as recommended by the manufacturer of the gypsum wallboard. Shellac shall not be used.

4. The adhesive used for application of the surfacing material shall be approved by the manufacturer of the surfacing material for use over gypsum wallboard.

5. The surfacing material shall provide a durable surface and prevent passage of free water or water vapor to backing material.

6. Fixture receptors and pans shall have an upstanding lip or flange 1" higher than the water dam or threshold of shower.

D. APPLICATION

1. Shower pans, receptors or tubs shall be installed prior to the erection of the gypsum wallboard. See framing requirements in B.

2. Gypsum wallboard shall be applied horizontally with the paper bound edge abutting the top edge of a temporary wood strip (or spacing nails) which shall allow a minimum of a $\frac{1}{4}$ " space between the lip of the receptor, tub or subpan and the gypsum wallboard.

3. Gypsum wallboard shall be applied and joints shall be treated as specified in

American Standard A97. Where ceramic tiles over $\frac{1}{4}$ " thick are to be used as a surfacing material, nails shall be spaced a maximum of 4" o.c.

4. The waterproof sealer shall be applied to the entire surface to receive tile. When a waterproof adhesive is used as a sealer it shall be applied in a continuous film $\frac{1}{16}$ " thick and allowed to partially dry. This is a separate operation, independent of the adhesive application used to secure the surfacing material. All edges of cutouts made in the gypsum wallboard for pipes, fixtures, etc., shall be sealed in like manner.

5. Before placing surfacing material, all openings around pipes, fixtures, etc., shall be caulked flush with waterproof, non-hardening caulking compound. The surfacing material shall then be applied and the lower edge shall overlap the top lip of receptor, pan or tub. The space between the fixture and the tile shall be filled with a non-setting caulking compound.

6. Where plastic finished wall panels and similar materials are used, only those mouldings recommended by the manufacturer of the surfacing materials shall be used. All angles shall be treated with mouldings, having a flange projecting behind the surfacing material on each leg of the angle. Mouldings shall be used at the base where the surfacing materials abut the tub or around the top edge of the surfacing material. All such mouldings shall be set in caulking compound.