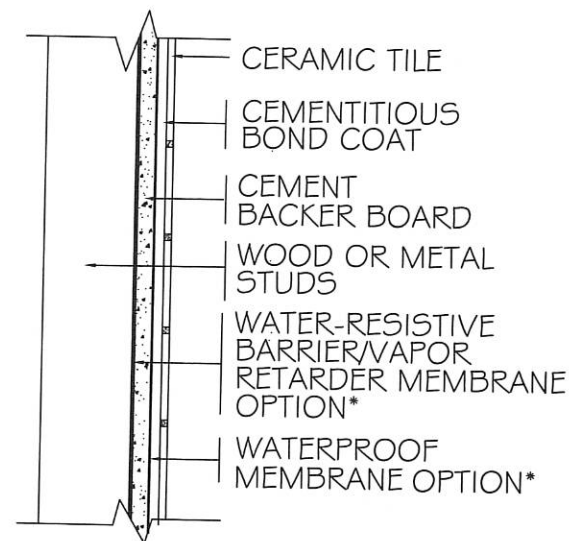


W244E-17

- Wood or Metal Studs
- Cement Backer Board
- Ceramic Tile, Glass Tile



*USE OF A MEMBRANE IS REQUIRED. SEE MEMBRANE OPTIONS.

Recommended Uses

- For exterior walls over wood or metal studs.

Environmental Exposure Classifications

- Res6; Com6.
- For installations that may be exposed to staining, specify tile and grout suitable for exposure. Consult product manufacturers; see also "Product Selection Guides."

Limitations

- Where installation will be subjected to freeze/thaw cycles, degradation can occur over time.
- Maximum stud spacing 16" on center.

Membrane Options

- Check building code—water-resistive barrier, waterproof membrane, or vapor retarder membrane may be required.
- A waterproof membrane (A118.10) may be specified to prevent moisture intrusion and protect adjacent building materials. Specifier shall indicate if complete waterproofing is required, including base flashing and treatment at other termination points.
- If waterproof membrane is applied over cement board, membrane over framing members may not be required.
- Check with membrane manufacturer for suitability for applicable conditions, as not all membranes are suitable for steam, high-temperature and/or chemical exposure, or exterior use.
- When glass tile is used, consult glass tile manufacturer for membrane options and recommendations.

Requirements

- Wood studs—dry and well-braced, minimum depth 3½"
- Metal studs—well-braced; 20 gauge (0.033") or heavier; minimum depth 3½" for residential applications or 3⅝" for commercial applications.
- Water-resistive barrier or waterproof membrane required, per building code. See Membrane Options.

Preparation by Backer Board Installers

- Maximum allowable variation in the tile substrate—for tiles with all edges shorter than 15", maximum allowable variation is ¼" in 10' from the required plane, with no more than ⅛" variation in 12" when measured from the high points in the surface. For tiles with at least one edge 15" in length, maximum allowable variation is ⅛" in 10' from the required plane, with no more than ⅛" variation in 24" when measured from the high points in the surface.
- Horizontal joints—⅛" spacing filled solid and taped with latex-portland cement mortar and 4" alkali-resistant glass fiber mesh tape.
- Vertical joints—fill any space and tape with latex-portland cement mortar and 4" alkali-resistant glass fiber mesh tape.
- Corners—leave space between backer units. Tape joints using skim coat of latex-portland cement mortar, but do not fill.
- Center backer board end or edge joints on framing and stagger joints in adjacent rows so four corners do not come together within the same plane. Space panel ends and edges in accordance with manufacturer's recommendations.

Materials

- **Multiple options exist for membranes, mortars, grouts, and other materials and must be clearly specified to be included. If not specifically indicated, optional materials are not included and mortar/grout choice defaults to minimum performance specification indicated. Consider each system component and intended use to determine minimum requirements and to specify options.**
- Ceramic tile—ANSI A137.1.
- Glass tile, when used—ANSI A137.2; see also "Glass Tile Selection and Installation Guide," and consult tile manufacturer for environmental exposure classification recommendations. Not all glass tiles are suitable.
- Cementitious grout—ANSI A118.6 or better or ISO CG1 or better. When glass tile is used, specify grout designated by tile and grout manufacturers.
- Cementitious bond coat:
 - When a waterproof membrane is not used on face of cement backer board—ANSI A118.15 or better or ISO C2S1 or better.

- When a waterproof membrane is used on face of cement backer board—ANSI A118.4 or better or ISO C2S1 or better, unless ANSI A118.1 or ISO C1 is recommended by membrane manufacturer.
- When glass tile is used, specify mortar designated by tile and mortar manufacturers. Bond coat color will impact the final appearance of translucent glass tile. Specifier shall confirm bond coat color is acceptable.
- Cement backer board—ANSI A118.9 or ASTM C1325 (Type A).
- Fasteners—noncorrosive and nonoxidizing.
- Hot-dipped fasteners meeting ASTM F2329-05 required in wet areas.
- 4" alkali-resistant glass fiber mesh tape.
- Water-resistive barrier/vapor retarder membrane, when used—per building code.
- Waterproof membrane, when used—ANSI A118.10.
- Metal studs—ASTM C645.

Materials for Green/Sustainable Design

- See "Green Building Standards and Green Product Selection Guide" and consult manufacturers and suppliers for product sustainability and contribution to green building design.
- Consider specifying tile and installation materials that meet ANSI A138.1, the *American National Standard Specifications for Sustainable Ceramic Tiles, Glass Tiles, and Tile Installation Materials*.

Preparation by Other Trades

- Wall framing shall meet the general framing requirements of ANSI A108.11-4.0-4.3.

Movement Joint (architect must specify type of joint and show location and details on drawings)

- Movement joints—mandatory according to EJ171.
- When glass tile is used, adhere to more frequent placement recommendations within the ranges listed in EJ171.

Installation Specifications

- Cement backer board—manufacturer's directions.
- Tile—ANSI A108.5.
- Glass tile—ANSI A108.15, .16, or manufacturer's directions.
- Cementitious grout—ANSI A108.10.
- Waterproof membrane—ANSI A108.13.
- Movement Joints—EJ171 and ASTM C1193.

Notes

- For prefabricated exterior panels, see "Additional Products Used in Tile Installations."
- Not all bonding mortars are suitable for exterior use.
- Protection of installation may be required to prevent premature exposure of setting materials to moisture.

- For interior applications, see W244C, B412, B415, and SR614.
- When glass tile is used, see "Glass Tile Selection and Installation Guide," and consult manufacturer for recommendations and requirements.