

## Aqua-Tough™

<b>Part 1: General</b>	<b>1.1 Scope</b>	Specify to meet project requirements.
	<b>1.2 Qualifications</b>	All materials, unless otherwise indicated, shall be manufactured by United States Gypsum Company and shall be installed in accordance with its current printed directions. For interior use only.
	<b>1.3 Delivery and Storage of Materials</b>	All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the premises. <b>WARNING:</b> Store all FIBEROCK® Brand AQUA-TOUGH™ Interior Panels flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.
	<b>1.4 Environmental Conditions</b>	In cold weather and during AQUA-TOUGH Interior Panel installation, joint finishing, and tile application, temperatures within the building shall be maintained at a minimum of 55 °F. Adequate ventilation shall be provided to carry off excess moisture. Wood framing shall approximate the moisture content it will reach in service prior to the application of the panels. Allow AQUA-TOUGH Interior Panels to acclimate to the temperature and humidity conditions at the jobsite prior to installation.
	<b>1.5 Framing</b>	Steel or wood wall framing to receive AQUA-TOUGH Interior Panels shall be structurally sound and in general compliance with local building code requirements. Damaged and excessively bowed studs shall be replaced before installation of AQUA-TOUGH Interior Panels. Framing shall be designed not to exceed L/360 deflection for tile applications. For fire-resistant or abuse-resistant construction, steel framing must be 20-gauge or heavier with corrosion-resistant metal coating equivalent to G40 hot-dipped galvanized.
	<b>1.6 Installation Practices</b>	<p>Cut AQUA-TOUGH Interior Panels to size with a utility knife and straight edge. Use a power saw only if equipped with a dust-collection device. Panels may be cut by scoring and snapping or by sawing, working from the face side.</p> <p>When using the score-and-snap method, score the panel twice and snap the panel away from the cut face. The backside of the panels is then broken by snapping the panel in the reverse direction. If a power-operated saw is used, a low-RPM unit with 3-1/2" carbide blade is recommended.</p> <p>When necessary, use a rasp or SURFORM® to smooth cut edges. Holes for pipes, fixtures and other small openings can be cut out with a saw or a drywall router equipped with a special bit (available from Rotozip Tool Corporation). When a router is used, hold panels away from the wall.</p> <p>Contractors installing tile and tile-setting materials should always follow current ANSI specifications, TCA guidelines and the specifications of the surfacing materials manufacturer.</p>
<b>Part 2: Products</b>	<b>2.1 Materials</b>	<p><b>A.</b> AQUA-TOUGH Interior Panels, 1/2" or 5/8" thickness, 48" width and lengths of 8' to 12'.</p> <p><b>B.</b> Joint Reinforcement</p> <ul style="list-style-type: none"> <li>– Tiled areas: DUROCK® Brand Joint Tape with latex-fortified mortar or latex-based Type I mastic.</li> <li>– Untiled areas: SHEETROCK® Brand Joint Tape, SHEETROCK® Brand DURABOND® Setting-Type Joint Compound.</li> </ul> <p><b>C.</b> Fasteners</p> <ul style="list-style-type: none"> <li>– Corrosion-resistant TYPE W or TYPE S® buglehead screws for wood framing (tile surfaces only).</li> <li>– Hot-dipped galvanized roofing nails for wood framing.</li> <li>– TYPE S buglehead screws for 25 ga. steel framing.</li> <li>– Corrosion-resistant TYPE S-12® buglehead screws for 20-14 ga. steel framing.</li> </ul> <p><b>D.</b> Adhesives/Mortars—Products:</p> <ul style="list-style-type: none"> <li>– Meeting ASTM C557.73: multiple purpose adhesives.</li> <li>– Meeting ANSI A136.1: type I organic adhesive.</li> <li>– Meeting ANSI A118.4: latex modified portland cement mortar.</li> </ul> <p><b>E.</b> Grout—Products meeting ANSI A118.6, A118.3 (Epoxy): specify type.</p> <p><b>F.</b> Tile—Tile shall meet ANSI A137.1.</p>

**Part 3:  
Execution**

**3.1  
Wall Applications**

- A.** Framing – Space wood and steel framing a maximum of 24" o.c. Framing shall be designed not to exceed L360 deflection for tile and L240 for flexible finishes like paint.
- B.** Cut panels to size with a utility knife and straight edge. Use a power saw only if equipped with a dust-collection device.
- C.** Position all ends and edges of panels over framing members, except when joints are at right angles to framing members, as in perpendicular applications or when end joints are back-blocked.
- D.** Install panels vertically whenever possible. End joints should be loosely fit. Install panels a minimum of 3/8" above the floor. Stagger end joints in successive courses with joints on opposite sides of a partition placed on different studs.
- E.** Attach panels to framing supports by spacing fasteners not less than 3/8" from edges and ends of panels and drive as recommended for specified fastening method. Drive fasteners in field of panels first, working toward ends and edges.
  - a.** Wood framing – Use corrosion-resistant Type W or TYPE S buglehead screws or hot-dipped galvanized roofing nails. Fasteners must be of sufficient length to ensure a minimum 3/4" penetration into wood framing.
  - b.** Steel Framing – Use Corrosion-resistant TYPE S or TYPE S-12 buglehead screws for 20-12 ga steel framing. When using 25 ga steel framing fasteners should be spaced no greater than 8" o.c. Fasteners must be of sufficient length to ensure a minimum of 3/8" penetration into steel framing.

**3.2  
Tub Surrounds**

- A.** Panel Application—After tub, shower pan or receptor is installed, place temporary 1/4" spacer strips or shims around lip of fixture. Pre-cut board to required sizes and make necessary cut-outs. Fit ends and edges closely but not forced together. Install board abutting top of spacer strip. Stagger end joints in successive courses. Fasten panels to wood studs spaced max. 24" o.c. with corrosion-resistant screws or hot-dipped galvanized roofing nails. For steel studs (14-25 ga.), use corrosion-resistant screws. For fastener spacing requirement, refer to table on page two.
- B.** Seal all openings around pipes, fittings and fixtures with waterproof flexible sealant. Allow areas to dry thoroughly prior to tile application. Wipe excess material from surface of panels. Remove spacer strips and seal gap at the bottom of panel.
- C.** A waterproof membrane (ANSI A118.10) must be applied to horizontal surfaces in wet areas.

**3.3  
Ceilings**

- A.** Framing—Must be capable of supporting the total ceiling system dead load, including insulation, ceramic tile, bonding materials and panels, with deflection not exceeding L/360 of the span for tiled surfaces.
- B.** Panel Application—Center end or edge joints on framing. Stagger end joints in successive courses. Fit ends and edges closely but not forced together. Fasten boards to framing using recommended fastener table on page one.

**3.4  
Joint Treatment  
Application**

- A.** For Tiled Areas—Embed DUROCK Joint Tape in latex-fortified mortar or latex-based Type I mastic over the joint. Use the same material as specified for tile setting.
- B.** For Untiled Areas—Embed SHEETROCK Joint Tape in DURABOND Setting-Type Joint Compound and wipe with a joint knife, leaving a thin coating of joint compound over all joints and interior angles. Complete to level of finish specified in project requirements.

**3.5  
Interior Ceramic Tile  
Application**

Follow ANSI Specifications and TCA Guidelines.

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**Good Design Practices**

**1 System Performance**

Systems covered herein have been tested and evaluated for use as described. For other system applications, consult your local representative.

All details, specifications and data contained in this literature are intended as a general guide for using AQUA-TOUGH Interior Panel systems.

Information in this publication should be used only for AQUA-TOUGH Interior Panel systems, as physical properties of competitive products may vary. United States Gypsum Company assumes no liability for failure resulting from the use of alternative materials or improper application or installation as specified herein.

United States Gypsum Company will provide building officials and design professionals upon written request with certification for published fire, sound and structural data covering systems constructed with these products and assembled to meet established performance requirements.

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**2 Expansion and Contraction**

Surfaces should be isolated with surface control joints or other means where: (a) a wall abuts a structural element; (b) construction changes within the plane of the wall.

Location of control joints is the responsibility of the design professional/architect. Double-framing members at control joints shall be spaced 1/2" apart. Attach control joint with 9/16" staples spaced 6" o.c. maximum in each flange. Cut end joints square and align for neat fit. Remove protective tape when joint treatment is completed. Do not apply tile or finishes over control joint. For alternate methods of forming control joints, refer to the Gypsum Construction Handbook (USG literature item H17).

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**3 Vapor Retarder**

Panels to receive an impervious finish, such as ceramic tile, should not be installed over a vapor retarder or on a wall acting as a vapor retarder.

**Product Information**

See [usg.com](http://usg.com) for the most up-to-date product information.

**Trademarks**

The following trademarks used herein are owned by USG Corporation or its subsidiaries: AQUA-TOUGH, FIBEROCK, DURABOND, DUROCK, SHEETROCK, USG. TYPE S and TYPE S-12 are trademarks of ITW Buildex. SURFORM is a trademark of The Stanley Works.

**Note**

Products described here may not be available in all geographic markets. Consult your U.S. Gypsum Company sales office or representative for information.

**Notice**

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**Safety First!**

Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

