

# USG FIBEROCK® BRAND AQUA-TOUGH™ AR INTERIOR PANEL



## Gypsum-fiber abuse-resistant panels outperform paper-faced gypsum board in abuse-prone areas

- Aqua-Tough™ panels provide increased resistance to moisture and mold
- No face paper to scratch or tear
- Resist denting, breaking and puncturing, even in high-traffic areas
- Provide excellent fire resistance
- Offer an economical alternative to concrete block and plaster construction
- Ideal for institutional, commercial and residential interiors
- Certified, recycled content of 97 percent

## DESCRIPTION

USG Fiberock® Brand Aqua-Tough™ AR Interior Panels are engineered to provide increased resistance to moisture, mold, abrasion, indentation and penetration for interior walls and ceilings in demanding construction applications. These gypsum-fiber panels are designed to outperform paper-faced gypsum board. Strong, solid and durable, they are approved for residential use in wet areas, including showers and tub surrounds. They also resist denting, breaking and puncturing—even in high-traffic areas. USG Fiberock Aqua-Tough AR Interior Panels are code approved for use in noncombustible construction. They have exceptional surface-burning characteristics (ASTM E84, Flame Spread 5, Smoke Developed 0) and fire resistance (ASTM E119). 5/8 in. USG Fiberock Aqua-Tough AR Interior Panels may be used in lieu of Type X gypsum panels in over 50 fire-rated wall assemblies as listed in the Underwriters Laboratories Inc. (UL) *Fire Resistance Directory* under "Type FRX-G."

## ADVANTAGES

**Abuse Resistant:** Engineered to provide increased resistance to abrasion, indentation and penetration, this panel outperforms paper-faced or glass mat-faced panels, with no paper face to tear or scratch.

**Water Resistant:** Water resistant through the core and suitable for use in wet areas including residential showers and tub surrounds.

**Mold Resistant:** In independent lab tests per ASTM D3273 *Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber*, USG Fiberock Aqua-Tough AR Interior Panels earn the highest score: 10.

**Fire Resistant:** Superior fire resistance and exceptional surface-burning characteristics. The 5/8 in. panel is UL Classified for fire resistance (FRX-G) and listed in more than 50 UL wall designs.

**Finishing Flexibility:** Features a smooth, paintable surface that can also be finished with ceramic tile.

**Environmentally Friendly:** Made from 97% recycled materials.

## PRODUCT DATA

### SIZES AND PACKAGING

Size (thickness x width x length)	Units (pcs.)
1/2 in. x 4 ft. x 8 ft.	30
1/2 in. x 4 ft. x 9 ft.	30
1/2 in. x 4 ft. x 10 ft.	30
1/2 in. x 4 ft. x 12 ft.	30
5/8 in. x 4 ft. x 8 ft.	24
5/8 in. x 4 ft. x 9 ft.	24
5/8 in. x 4 ft. x 10 ft.	24
5/8 in. x 4 ft. x 12 ft.	24

## TECHNICAL DATA

Property	Unit of Measure	ASTM Test Method	5/8 in. USG Fiberock® Brand Aqua-Tough™ AR Interior Panel	1/2 in. USG Fiberock® Brand Aqua-Tough™ AR Interior Panel
<b>Flexural Strength</b>	lbf	C473	> 155	> 110
<b>Compressive Strength</b>	psi	n/a	> 500	> 500
<b>Nail-Pull Resistance</b>	lb. (0.4 in. head diameter, dry)	C473	> 145	> 120
<b>Weight</b>	psf	C473	3.1	2.4
<b>Mold Resistance</b>	—	D3273	10 (no growth)	10 (no growth)
<b>Surface Burning Characteristics</b>	flame/smoke	E84	5/0	5/0
<b>Thermal</b>	"R"/k value	C518	—	.30/1.84

**Compliance with Standards:** Meets ASTM C1278.

**Edge Configuration:** Long edges tapered; ends cut square.

## ABUSE-RESISTANT PERFORMANCE ASTM C1629 PERFORMANCE

*Abrasion	Level 1
Indentation	Level 1
Soft Body Impact	Level 2
Hard Body Impact	Level 1

\* With a standard primer and two coats of finish paint, USG Fiberock Aqua-Tough™ AR Interior Panels will achieve level 3 abrasion resistance.

## GOOD DESIGN PRACTICES

1. USG Fiberock Aqua-Tough AR Interior Panels are designed for interior use only.
2. Panels may be attached to wood or steel-stud framing and furring channels.
3. For abuse-resistant or fire-resistant construction, 20-gauge or heavier studs are required.
4. For improved abuse-resistant system performance, USG Sheetrock® and Beadex® Brand Paper-Faced Metal Corner Bead and Trim and USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer are recommended.
5. Where USG Fiberock interior panel systems abut or intersect dissimilar construction or building structural components, isolation techniques, such as caulk and/or slip tracks, are required.
6. Control joints should be spaced at a maximum of 28 ft. o.c. in walls and above door jambs; 28 ft. o.c. in ceilings (50 ft. with perimeter relief) and at L-, T- or U-intersections. Location of control joints is the responsibility of the professional/architect.
7. Framing members should be straight and true. Studs and joints must be in true alignment; bridging, firestops, etc. must not protrude beyond plane of framing. Due to strength and rigidity of USG Fiberock interior panels, it may be difficult to compensate for out-of-plane imperfections in framing.

## DELIVERY AND STORAGE OF MATERIALS

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. All materials should be stored flat.

## INSTALLATION

- A. Position all ends and edges of all gypsum-fiber panels over framing members, except when joints are at right angles to framing members, as in perpendicular application or when end joints are back-blocked.
- B. Install panels vertically whenever possible. For horizontal panel application, panels must be gapped 1/16 in. of an inch. End joints should be loosely fit. Install panels a minimum of 3/8 in. above the floor. To minimize end joints, use panels of maximum practical lengths. Stagger end joints in successive courses with joints on opposite sides of a partition placed on different studs.
- C. Attach panels to framing supports by: Standard Single Nailing Method, Double Nailing Method or Power-Driven Screws. Space fasteners not less than 3/8 in. 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. Hold panel in firm contact with framing while driving fasteners. Drive fastener heads slightly below surface of gypsum fiber panels in a uniform dimple.

## INSTALLATION, CONT.

- D. Concealment of joints, fasteners and trims in areas that will be painted: For taping use USG Sheetrock® Brand Paper Joint Tape with USG Sheetrock® Brand Durabond® Joint Compound. For finishing use a USG Sheetrock® Brand All Purpose Joint Compound. In areas that will be tiled, finish joints with USG Durock™ Brand Tile Backer Tape and latex-fortified mortar or Type I mastic.
- E. For non-fire-rated partition designs, refer to the tables below for fastener spacing. For UL fire-rated partition designs, refer to the specific UL design for proper fastener spacing.

				Fastener Spacing	
Ceilings (Wood- or Steel-Framed)	Thickness	Application	Frame Spacing	Nails	Screws
	1/2 in.	parallel	16 in. o.c.	7 in. o.c.	12 in. o.c.
	1/2 in.	perpendicular	16 in. o.c.	7 in. o.c.	12 in. o.c.
	5/8 in.	parallel	16 in. o.c.	7 in. o.c.	12 in. o.c.
	5/8 in.	perpendicular	24 in. o.c.	7 in. o.c.	12 in. o.c.

			Fastener Spacing	
Walls	Thickness	Frame Spacing*	Nails	Screws
	1/2 in.	24 in. o.c.	8 in. o.c.	12 in. o.c.
	1/2 in.	16 in. o.c.	8 in. o.c.	16 in. o.c.
	5/8 in.	24 in. o.c.	8 in. o.c.	12 in. o.c.
	5/8 in.	16 in. o.c.	8 in. o.c.	16 in. o.c.

\*16 in. o.c recommended for abuse-resistant applications.

- F. If waterproofing is desired, use USG Durock™ Brand Waterproofing Membrane. See *USG Durock™ Brand Waterproofing Membrane* (CB595) for product information. For fluid-applied waterproofing, use USG Durock™ Brand Liquid Waterproofing and Crack Isolation Membrane. See *USG Durock™ Brand Liquid Waterproofing and Crack Isolation Membrane* (CB817) for product information.
- G. Install trim at all internal and external angles formed by the intersection of either panel surfaces or other surfaces. Apply (metal) (paper-faced) corner bead to all vertical or horizontal external corners in accordance with manufacturer's directions.

## SURFACE TREATMENT

USG Fiberock interior panels must be surface treated with one of the options, in accordance with USG recommendations. Option A may be used when surface uniformity is not of concern, i.e., the surface uniformity stipulation has been waived by the job managerial and/or inspection authorities and conditions described in Option B (below) do not exist.

### OPTION A

Apply a skim coat of joint compound at a trowel-applied consistency to entire surface and let dry using a USG Sheetrock® Brand ready-mix all purpose type joint compound or USG Sheetrock® Brand Cover Coat Compound.

#### Note:

When properly prepared as a skim coating material, these ready mixed joint compounds can be used in a skim coat operation. Refer to USG literature J2010 Finishing & Decorating Gypsum Panels for information and job acceptance concerning skim coating with USG Sheetrock® Brand ready-mix joint compounds.

The skim coated surface must be smooth and free of tool marks and ridges (a light sanding of the skim coating may be necessary to remove tool marks). Remove sanding dust from surface, then apply one coat (5-10 mils Wet Film Thickness) of USG Sheetrock® Brand First Coat™ Primer over the entire surface. Allow surface to dry prior to decorating. Refer to USG Technical Literature: J1095 for more information regarding USG Sheetrock® Brand First Coat™ Primer.

#### Note:

A single full coverage coat of USG Sheetrock® Brand Tuff-Hide Primer-Surfacer may be used in lieu of a skim coat of joint compound and the application of USG Sheetrock® Brand First Coat Primer. Refer to USG Technical Literature J1613 and J1810 for more information regarding USG Sheetrock® Brand Tuff-Hide Primer-Surfacer benefits and application.

### OPTION B

Recommended in areas where one or more of the following conditions exist: 1) Exposure to critical/severe lighting. 2) Paints with sheen levels other than flat are specified. 3) High value spaces exist. 4) Final surface smoothness and uniformity are expected and/or specified. Apply two separate skim coats of joint compound at a trowel-applied consistency to entire surface and let dry using a USG Sheetrock® Brand ready-mix all purpose type joint compound or USG Sheetrock® Brand Cover Coat Compound.

#### Note:

When properly prepared as a skim coating material, these ready mixed joint compounds can be used in a skim coat operation. Refer to USG literature J2010 Finishing & Decorating Gypsum Panels for information and job acceptance concerning skim coating with USG Sheetrock® Brand ready-mix joint compounds.

## SURFACE TREATMENT

### OPTION B, CONT.

The skim coated surface must be smooth and free of tool marks and ridges (a light sanding of the skim coating may be necessary to remove tool marks). Remove sanding dust from surface, then apply one coat (5-10 mils Wet Film Thickness) of USG Sheetrock® Brand First Coat™ Primer over the entire surface. Allow surface to dry prior to decorating. Refer to USG Technical Literature: J1095 for more information regarding USG Sheetrock® Brand First Coat™ Primer.

#### Note:

A single full coverage coat of USG Sheetrock® Brand Tuff-Hide Primer-Surfacer may be used in lieu of the second skim coat of joint compound and the application of USG Sheetrock® Brand First Coat Primer. Refer to USG Technical Literature J1613 and J1810 for more information regarding USG Sheetrock® Brand Tuff-Hide Primer-Surfacer benefits and application.

## VENEER PLASTER

Joints should be treated with USG Sheetrock® Brand Paper Joint Tape and USG Sheetrock® Brand Easy Sand™ or Durabond® Joint Compound. Joint surfaces must be treated with a separate coat of joint compound to fully conceal the paper tape. When the joint is completely dry, treat entire wall surface with USG plaster bonder according to application directions. Then apply USG Diamond® Veneer Basecoat Plaster from 1/16 in. to 3/32 in. thickness using a scratch and double-back technique. This is accomplished by applying a light, thin coat over the entire area, and immediately doubling back with plaster from the same batch to achieve full thickness. When basecoat plaster is firm, broom the surface to leave it rough and open for finish. With basecoat set and partially dry, apply USG Imperial® Veneer Finish Plaster using a scratch and double-back technique. Complete finishing when material is firm. Leave finished surface smooth and dense for decorating. Refer to USG literature SA920 for complete plaster recommendations.

## CERAMIC TILE APPLICATIONS

USG Fiberock Aqua-Tough AR Interior Panels are acceptable for use as a ceramic tile backer. Refer to the TCNA Handbook for specific system and finishing requirements.

#### Note:

Do not use in areas subject to prolonged exposure to standing water; for instance, gang showers, saunas and hot tub decks. If waterproofing is desired, use USG Durock™ Brand Liquid Waterproofing and Crack Isolation Membrane. See USG Durock™ Brand Liquid Waterproofing and Crack Isolation Membrane submittal (CB817) for product information.

## LIMITATIONS

1. USG Fiberock Aqua-Tough AR Interior Panels are designed for interior use only and should not be used in exterior applications.
2. Panels should not be exposed to sustained temperatures in excess of 125 °F (51.6 °C).
3. For fire-resistant or abuse-resistant construction over steel framing, a minimum of 20-gauge steel framing is required.
4. USG Fiberock Aqua-Tough AR Interior Panels are not designed to be used in enclosed pool areas.

## SUBMITTAL APPROVALS

### PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

### TRADEMARKS

The trademarks USG, AQUA-TOUGH, BEADEX, DIAMOND, DURABOND, DUROCK, EASY SAND, FIBEROCK, FIRST COAT, IMPERIAL, MIDWEIGHT, PLUS 3, SHEETROCK, TUFF-HIDE, IT'S YOUR WORLD. BUILD IT., the USG logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

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### SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

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