



# USG SHEETROCK® BRAND ECOSMART PANELS MOLD TOUGH® FIRECODE® X

## The first lightweight and sustainable 5/8 in. (15.9 mm) Type X wallboard with moisture and mold resistance

- The lightest 5/8 in. (15.9 mm) moisture- and mold-resistant Type X gypsum panel available
- Meet Architecture 2030 Challenge for Products
  - Up to 11% less global warming potential (GWP)<sup>1</sup>
  - Up to 15% less water used in the manufacturing process<sup>1</sup>
- Living Building Challenge™ Compliant
- Contains 100% USDA certified biobased content
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)
- Underwriters Laboratories Inc. (UL) Classification as to fire resistance, surface-burning characteristics and noncombustibility
- Comply with ASTM C1396, *Standard Specification for Gypsum Board*, for 5/8 in. (15.9 mm) Type X, water-resistant gypsum wallboard and exterior gypsum soffit board
- Listed by UL in the most widely specified wall, column, floor-ceiling and roof-ceiling assemblies (refer to specific UL designs for complete details)

### Note:

1. Compared to third-party verified Life Cycle Analysis (LCA) for standard 5/8 in. (15.9 mm) USG Sheetrock® Brand Mold Tough® Firecode® X Panels.

## DESCRIPTION

USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X represent a revolution in wallboard manufacturing, significantly reducing the need for natural resources and impact on the environment. These lightweight 5/8 in. (15.9 mm) Type X gypsum panels feature a noncombustible, moisture- and mold-resistant gypsum core that is encased in moisture- and mold-resistant, 100% recycled green face and brown back papers. When tested in accordance with ASTM D3273, *Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber*, the panels meet or exceed ASTM C1396 specifications. The long edges of the panels are tapered, allowing joints to be reinforced and concealed with USG Sheetrock® Brand joint treatment systems. The panels are UL Classified for fire resistance and can be used in any UL design in which UltraLight Innovation Type X (ULIX™) panels are listed. On the face along the long edge of each panel, the UL Type Designation is printed for easy identification by building inspectors.

## INTENDED FOR

- Commercial or residential applications where 5/8 in. (15.9 mm) moisture- and mold-resistant Type X panels are required
- New or repair and remodel construction
- Load-bearing and non-load-bearing wood- or steel-framed fire-rated walls
- Interior tile substrate in dry locations or areas with limited water exposure
- Protected exterior soffit and ceiling applications
- Wall, column, floor-ceiling and roof-ceiling assemblies (refer to specific UL designs for complete details)

## LIMITATIONS

1. Avoid exposure to sustained temperatures exceeding 125 °F (52 °C).
2. Avoid exposure to excessive, repetitive or continuous moisture before, during and after installation. Eliminate sources of moisture immediately.
3. UL Type ULI™ requires the use of insulation for single-layer, steel-framed UL fire-rated wall assemblies.
4. Must be stored off the ground and under cover in accordance with Gypsum Association's GA-801, *Handling and Storage of Gypsum Panel Products*.

## LIMITATIONS CONT.

- Not suitable for use as a substrate for tile in wet areas such as tubs and showers, gang showers and other areas subject to direct water exposure.
- Use as a tile substrate is limited to tile installed according to the most current TCNA and ANSI specifications. Please consult with the adhesive and tile manufacturers for their recommendations for maximum size and weight parameters for use with gypsum board.
- Not recommended for exterior soffits and ceilings which project upwards and away from the building proper.

## INTERIOR INSTALLATION, FINISHING AND DECORATING

### INSTALLATION

For maximum framing spacing in non-fire-resistance-rated applications of gypsum panel products, refer to Gypsum Association's GA-216, *Specifications for the Application and Finishing of Gypsum Panel Products* or ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*. For fire-resistance-rated applications, refer to the published UL Design or GA File Number.

#### Maximum Framing Spacing for Single-Layer Application

Location	Gypsum Panel Thickness	Gypsum Panel Orientation to Framing	Maximum Framing Spacing OC
Ceilings <sup>2</sup>	5/8 in. (15.9 mm)	Parallel	16 in. (406 mm)
		Perpendicular	24 in. (610 mm)
Walls	5/8 in. (15.9 mm)	Parallel	24 in. (610 mm)
		Perpendicular	24 in. (610 mm)

#### Maximum Framing Spacing for Multi-Layer Application Without Adhesive Between Layers

Location	Gypsum Panel Thickness	Gypsum Panel Orientation to Framing	Maximum Framing Spacing OC
Ceilings <sup>2</sup>	5/8 in. (15.9 mm)	Parallel	16 in. (406 mm)
		Perpendicular	24 in. (610 mm)
Walls	5/8 in. (15.9 mm)	Parallel	24 in. (610 mm)
		Perpendicular	24 in. (610 mm)

#### Note:

- On ceilings to receive water-based texture material, 5/8 in. (15.9 mm) gypsum board shall be applied either parallel to framing spaced at 16 in. (406 mm) OC or perpendicular to framing spaced maximum 24 in. (610 mm) OC. See Appendix A.3 of Gypsum Association's GA-216, *Specifications for the Application and Finishing of Gypsum Panel Products* for more information.

## FINISHING AND DECORATION

For high-quality finishing results, USG recommends USG Sheetrock® Brand finishing products.

Painting products and systems should be used that comply with recommendations and requirements in Appendices of ASTM C840. For priming and decorating with paint, texture or wall covering, follow manufacturer's directions for materials used. Gypsum Association's GA-214, *Recommended Specification for Levels of Gypsum Board Finish* should be referred to in order to determine the level of finishing needed to ensure a surface properly prepared to accept the final decoration.

All surfaces, including applied joint compound, must be thoroughly dry, dust-free and not glossy. Prime with USG Sheetrock® Brand First Coat™ Primer or with an undiluted, interior latex flat paint with high-solids content. Allow to dry before decorating.

To improve fastener concealment where gypsum panel walls and ceilings will be subjected to critical artificial or natural lighting, or will be decorated with a gloss paint (eggshell, semigloss or gloss), the gypsum panel should be skim coated with joint compound. This equalizes suction and texture differences between the drywall face paper and the finished joint compound before painting. When a Level 5 finish is required, use USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer. See *USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer Submittal Sheet* (J1613) for limitations and application instructions.

For more information, refer to USG literature *Finishing & Decorating Gypsum Panels White Paper* (J2010).

## EXTERIOR INSTALLATION, FINISHING AND DECORATING

### WOOD FRAMING

1 in. x 4 in. (25 mm x 102 mm) wood furring may be used in non-fire-rated construction for screw application where support member spacing is 24 in. (610 mm) OC maximum. Furring of 2 in. (51 mm) nominal thickness should be used in non-fire-rated construction for nail application of board or where framing spacing is from 24 in. (610 mm) to 48 in. (1219 mm) maximum.

### STEEL FRAMING

Installation of grillage should be the same as for single-layer drywall application. Refer to USG literature *USG Drywall Suspension System Brochure* (AC3152) or contact the Steel Stud Manufacturers Association for application information.

## EXTERIOR INSTALLATION, FINISHING AND DECORATING CONT.

### WEATHER PROTECTION

At the perimeter and vertical penetrations, the exposed core of panels must be covered with a J-stop trim or securely fastened moldings. In areas subject to freezing temperatures and other severe weather conditions, shingled roofs should be installed in accordance with good roofing practices. Fascia boards should extend at least 1/4 in. (6.4 mm) below the ceiling board or adjacent trim moldings, whichever is lower, to provide a drip edge.

### INTERSECTIONS

Where ceiling board expanse exceeds 4 ft. (1219 mm), a space of at least 1/4 in. (6.4 mm) should be provided between edge of ceiling board and adjacent walls, beams, columns and fascia. This space may be screened or covered with molding, but should not be caulked.

### CONTROL JOINTS

USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X, like other building materials, is subject to structural movement, expansion, and contraction due to changes in temperature and humidity.

For more information, refer to USG literature *Fire-Resistant Assemblies* (SA100), *The USG Gypsum Construction Handbook*, and/or Gypsum Association's GA-216, *Application and Finishing of Gypsum Panel Products* and GA-234, *Control Joints for Fire-Resistance Rated Systems*.

### FINISHING AND DECORATING

Treat joints with USG Sheetrock® Brand Durabond® or Easy Sand™ Joint Compound and USG Sheetrock® Brand Fiberglass Joint Tape. These setting-type joint compounds are hardening-type products developed to provide faster finishing of drywall, even under slow drying conditions. Rapid chemical hardening and low shrinkage permit same-day finishing and usually next-day decoration. They also feature exceptional bond; virtually unaffected by humidity extremes.

### TEST DATA

Property		ASTM Test Method	ASTM C1396 Specification 5/8 in. (15.9 mm) Wallboard	UL Type ULIX™
Noncombustibility		E136	Pass	Pass
Surface-burning characteristics	Flame spread	E84	Flame Spread Index, not greater than 25	5
	Smoke developed	E84	Smoke Developed Index, not greater than 450	5
	Classification	E84	—	Class A
Core hardness	Field	C473 (B)	Not less than 11 lbf (49 N)	Meets or exceeds
	End	C473 (B)	Not less than 11 lbf (49 N)	Meets or exceeds
	Edge	C473 (B)	Not less than 11 lbf (49 N)	Meets or exceeds
Flexural strength	Parallel	C473 (B)	Not less than 46 lbf (205 N)	Meets or exceeds
	Perpendicular	C473 (B)	Not less than 147 lbf (654 N)	Meets or exceeds
Humidified deflection		C473	Not greater than 5/8 in. (15.9 mm)	Less than
Nail pull resistance		C473 (B)	Not less than 87 lbf (387 N)	Meets or exceeds

#### Note:

For more information on sound performance, see USG literature *USG Sheetrock® Brand EcoSmart Panels Sound Performance Selector Guide* (WB2880).

### MOISTURE AND MOLD RESISTANCE

Per ASTM C473, *Test Methods for Physical Testing of Gypsum Panel Products*, the average water absorption for USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X is not greater than 5% by weight after two-hour immersion.

In independent lab tests conducted per ASTM D3273 at the time of manufacture, the panels meet or exceed ASTM C1396 specifications.

This ASTM lab test may not accurately represent the mold performance of building materials in actual use. Given unsuitable project conditions during storage, installation or after completion, any building material can be overwhelmed by mold. To manage the growth of mold, the best and most cost-effective strategy is to protect building products from water exposure during storage and installation and after completion of the building. This can be accomplished by using good design and construction practices.

## PRODUCT DATA

	UL Type ULIX™
Thickness	5/8 in. (15.9 mm)
Lengths <sup>3</sup>	8-12 ft. (2438-3658 mm)
Width	4 ft. (1219 mm)
Weight <sup>4</sup> , nominal	1.85 lb./sq. ft. (9.03 kg/sq. m.)
Edges	Tapered
Packaging	Two panels per bundle

### Notes:

- Other sizes available by special order. Check with your local USG representative for availability.
- Represents approximate weight for design and shipping purposes. For specific product weight in your area, contact your local USG representative or call the Customer Service Center at 800 950-3839.

## COMPLIANCE

### PRODUCT INFORMATION

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

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit [ul.com/gg](http://ul.com/gg).

### CAUTION

Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Cut and trim with a utility knife or hand saw to minimize dust levels. Power tools must be equipped with a dust collection system. Wear eye, skin and respiratory protection if necessary. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call a physician. Do not swallow. If swallowed, call a physician. For more information call Product Safety: 800 507-8899 or see the SDS at [usg.com](http://usg.com).

**KEEP OUT OF REACH OF CHILDREN**

### TRADEMARKS

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### NOTE

Products described here may not be available in all geographic markets. Consult your USG Company sales office or representative for information. The information in this document is subject to change without notice. USG Corporation assumes no responsibility for any errors that may inadvertently appear in this document.

### 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 Safety Data Sheets and related literature on products before specification and/or installation.

- Comply with ASTM C1396 for 5/8 in. (15.9 mm) Type X, water-resistant gypsum wallboard and exterior gypsum soffit board
- Classified as a Class A Interior Finish Material per Section 803.1 of the International Building Code® (IBC®)
- UL Classification as to fire resistance, surface-burning characteristics and core combustibility
- Meet Architecture 2030 Challenge Criteria for Products
- Living Building Challenge™ Compliant
- USDA Certified Biobased Product
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)

## SUBMITTAL APPROVALS

Job Name	
Contractor	Date



**Declare.**



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