USG SHEETROCK® BRAND
AR FIRECODE® X PANELS

Low-cost, abuse-resistant panels
- Designed and tested to offer greater resistance to surface indentation and impact damage than standard USG Sheetrock® Brand Gypsum Panels
- Meets ASTM C1629 Level 1 for soft- and hard-body impact and indentation resistance
- Underwriters Laboratories Inc. (UL) Classification as to fire resistance, surface burning characteristics and noncombustibility
- USG Sheetrock® Brand AR Firecode® X Panels have achieved GREENGUARD GOLD Certification

USG Sheetrock® Brand AR Firecode® X Panels are available in UL Type Designation AR. These panels are designed and tested to offer greater resistance to surface indentation and impact damage than standard USG Sheetrock® Brand Gypsum Panels, and are a low-cost alternative to other systems for partitions that require greater abuse resistance.

USG Sheetrock® Brand AR Firecode® X Panels are encased in heavy natural-finish paper on the face side and strong liner paper on the back side. The face paper is folded around the long edges to reinforce and protect the core, and the ends are square cut and finished smooth. The long edges of the panel are tapered, allowing joints to be reinforced and concealed with a USG Sheetrock® Brand joint treatment system.

Recommended for commercial or residential applications where greater resistance to indentation and impact damage are required, USG Sheetrock® Brand AR Firecode® X Panels are classified by UL as to fire resistance and meet the requirements for Type X in the model building code.

Note: For projects requiring superior abuse resistance, specify USG Sheetrock® Brand Mold Tough® VHI Firecode® X Panels.

INTENDED FOR
- Commercial or residential applications where greater resistance to indentation and impact damage are required
- Areas where additional abuse resistance is desired
- New or repair and remodel construction

LIMITATIONS
1. Avoid sustained exposure to temperatures exceeding 125˚F (52˚C).
2. Maximum framing spacing for walls is 16” o.c.
3. Avoid exposure to excessive, repetitive or continuous moisture before, during and after installation. Eliminate sources of moisture immediately.
4. Must be stored off the ground and under cover in accordance with Gypsum Association publication GA-801, Handling and Storage of Gypsum Panel Products.
5. For abuse-resistant construction over steel framing, minimum 20-gauge drywall steel studs (0.0312” design thickness) as defined by the Steel Stud Manufacturers Association (SSMA) are required.
6. 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.
7. Application of USG Sheetrock® Brand AR Firecode® X Panels over an insulating blanket, installed continuously across the framing members, is not recommended. Blankets should be recessed and blanket flanges attached to sides of studs or joists.
USG Sheetrock® Brand AR Firecode® X Panels are by design stronger and have greater surface hardness than standard 5/8" Type X panels. Because of this, they are heavier and will be expectedly more difficult to install. Slower installation production rates should be accounted for in job planning.

Installing USG Sheetrock® Brand AR Firecode® X Panels on studs fabricated with steel thinner than true 20-gauge drywall steel studs (0.0312" design thickness) as defined by the SSMA may result in increased fastener strip-out, improper screwhead seating or other related conditions. The equivalent gauge framing is also more sensitive to screw configuration and thread pitch. Due to the wide variety of “equivalent” or “effective” gauge studs and the variation by manufacturer in actual steel thickness, USG has no specific recommendations for installing USG Sheetrock® Brand AR Firecode® X Panels on equivalent gauge steel studs.

For high-quality finishing results, USG recommends the following products:

- USG Sheetrock® Brand Ready-Mixed Joint Compounds
- USG Sheetrock® Brand Setting-Type Joint Compounds
- USG Sheetrock® Brand Joint Tape
- USG Sheetrock® Brand First Coat™ Primer
- USG Sheetrock® Brand Paper-Faced Metal Corner Bead and Trim
- USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer

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.

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 severe artificial or natural side lighting and be decorated with a gloss paint (eggshell, semigloss or gloss), the gypsum panel surface 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. As an alternative to skim coating, or when a Level 5 finish is required, use USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer.

<table>
<thead>
<tr>
<th>UL Type AR</th>
<th>Thickness</th>
<th>5/8&quot;</th>
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</thead>
<tbody>
<tr>
<td>Lengths and Widths</td>
<td>48&quot; wide—8', 9', 10', 12'</td>
<td></td>
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<tr>
<td>Weight</td>
<td>2.8 lbs./sq. ft.</td>
<td></td>
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<tr>
<td>Edges</td>
<td>Tapered</td>
<td></td>
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<tr>
<td>Packaging</td>
<td>Two panels per bundle</td>
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USG Sheetrock® Brand AR Firecode® X Panels are tested in accordance with ASTM C1629. The test procedures are summarized below.

<table>
<thead>
<tr>
<th>Test Standard</th>
<th>Test Summary</th>
<th>Classification Levels</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance ASTM C1629</td>
<td>A sample is placed under a wire brush weighted with 25 lbs. The brush is then cycled 50 times back and forth across the surface. This creates surface wear that is measured to determine the level of abrasion resistance.</td>
<td>Maximum Depth Level 1 = 0.126&quot; Level 2 = 0.059&quot; Level 3 = 0.010&quot;</td>
<td>Level 2</td>
</tr>
<tr>
<td>Indentation Resistance ASTM C1629</td>
<td>A 2 lb. weight is raised to a 36° height and dropped onto a 5/8” hemispherical die that strikes the sample with 72,-lbs. of force. The depth of the indentation is measured to determine the level of indentation resistance.</td>
<td>Maximum Depth Level 1 = 0.150&quot; Level 2 = 0.100&quot; Level 3 = 0.050&quot;</td>
<td>Level 1</td>
</tr>
<tr>
<td>Soft-Body Impact Resistance ASTM C1629</td>
<td>A 60 lb. leather bag is suspended on a rope and raised away angularly from a sample installed on 2” x 4” wood framing 16” o.c. The bag is raised (in 6” increments) and released to impact the sample. The impact energy is calculated based upon the bag weight and drop height where structural failure occurs.</td>
<td>Minimum ft.-lb. (structural failure) Level 1 = 90 ft.-lb. Level 2 = 195 ft.-lb. Level 3 = 300 ft.-lb.</td>
<td>Level 1</td>
</tr>
<tr>
<td>Hard-Body Impact Resistance ASTM C1629</td>
<td>A 2’ x 2’ sample is mounted vertically to a metal frame and impacted with a 2-3/4” diameter weighted swinging ram (resembling a sledgehammer). Weight is added in 2.5 lb. increments to increase the impact force. Failure energy is determined when penetration through the face into the frame cavity occurs.</td>
<td>Minimum ft.-lb. (structural failure) Level 1 = 50 ft.-lb. Level 2 = 100 ft.-lb. Level 3 = 150 ft.-lb.</td>
<td>Level 1</td>
</tr>
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</table>

**Note:** USG testing demonstrates that when painted with one coat of primer and two coats of semigloss latex paint, the abrasion resistance for paper-faced gypsum wallboard panels increases to Level 3.

**COMPLIANCE**

Each USG Sheetrock® Brand AR Firecode® X Panel bears the UL mark as evidence of UL Classifications for fire resistance, surface burning characteristics and noncombustibility. They can be used in UL designs where type “AR” panels are listed. Class A, as defined in International Building Code® (IBC®) section 803.1, flame spread is 15, smoke developed is 5, when tested in accordance with ASTM E84. Complies with ASTM C1396.

**SUBMITTAL APPROVALS**

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Contractor</th>
<th>Date</th>
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**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.

**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

**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.

**NOTICE**

We shall not be liable for incidental and consequential damages, direct or indirect, 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.

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