

LEAD LINED FIRECODE DRYWALL

Lead lined Firecode drywall fabricated by Patson Lead, Inc. is provided as follows:

1. **Sheet Lead:** A single unpierced sheet, of the thickness required, is laminated to the back of the drywall using a water-based acrylic polymer adhesive. The lead backing meets Federal Specification QQ-L-201f, Grade C. (see chart) The height of the lead is as requested from 84" to full height of drywall. The width of the sheet lead is 48". The lead thickness used on drywall should be 1/8" or less. (see special applications)

2. **Drywall:** Board is furnished as either 1/2" or 5/8" Firecode Type X gypsum board. Board is furnished in 48" width by length required. Plaster (blue) board, moisture resistant (green) board and mildew resistant board are also available. Specifications per attached manufacturer's sheets.

3. **Accessories:** Each sheet of lead lined drywall is provided with a 2" lead joint strip. This strip is applied to each joint stud using construction adhesive before the drywall is installed. Lead discs to cover the heads of the drywall screws are also included. Miscellaneous sheet lead can be provided, if required, for shielding cutouts. (see dwgs.) All penetrations are to be shielded with the same thickness lead as that on the surrounding wall.

4. **Notes on Installation:** All studs must be vertical and on center for lead lined drywall installation. They should be of sufficient gauge to support the weight of the board.

Joints, cutouts and all other penetrations must be shielded.

Recommended spacing of fasteners is 8" o.c. on the joint studs and 12" o.c. on the intermediate studs.

5. **Special Applications:** For ease of handling and installation, situations requiring lead thicknesses greater than 1/8" should use lead lined plywood. This is available in standard plywood sizes. Depending upon the weight it may be advisable to cut the full sheets into smaller, more manageable pieces. In some applications using thicker lead it may be desirable to layer the lead to attain the thickness required, then apply the drywall over it.

LEAD LINED FIRECODE DRYWALL

APPROXIMATE LEAD LINED DRYWALL WEIGHTS For common sizes

	5/8" x4' x 8'	5/8" x 4' x 9'	5/8" x 4' x 10'	Sheet lead only
1/32" X 7'	127#	141#	150#	61.04#
1/32" x 8'	136#	150#	159#	69.76#
1/32" x 9'	144#	158#	167#	78.48#
1/32" x 10'	152#	166#	175#	87.20#
1/16" x 7'	178#	192#	201#	111.72#
1/16" x 8'	194#	208#	217#	127.68#
1/16" x 9'	210#	224#	233#	143.64#
1/16" x 10'	225#	239#	248#	159.60#

Federal Specification QQ- L- 201F Chemical Analysis for Grade 'C' Lead

ELEMENT	PERCENT MAXIMUM	NOTE
LEAD	99.90	MINIMUM BY DIFFERENCE
ANTIMONY, TIN, ARSENIC (TOTAL)	.002	
IRON	.002	
BISMUTH	.025	
ZINC	.001	
COPPER	.080	
SILVER	.020	
TELLURIUM	-----	

For Grade 'C', no element other than those specified shall exceed 0.001 percent Maximum as determined by a normal spectrographic analysis.

LEAD LINED FIRECODE DRYWALL

Fabricator Information

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(800) 618-5323

(800) 270-0551

Website: www.patsonlead.com

Contact: Don Powell don@patsonlead.com
Mark Cooper mark@patsonlead.com

Est. 1988

DATE:

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859-363-1600 800-618-5323 FAX 800-270-0551

LEAD LINED FIRECODE DRYWALL

SOLD TO:

P.O.#

JOB :

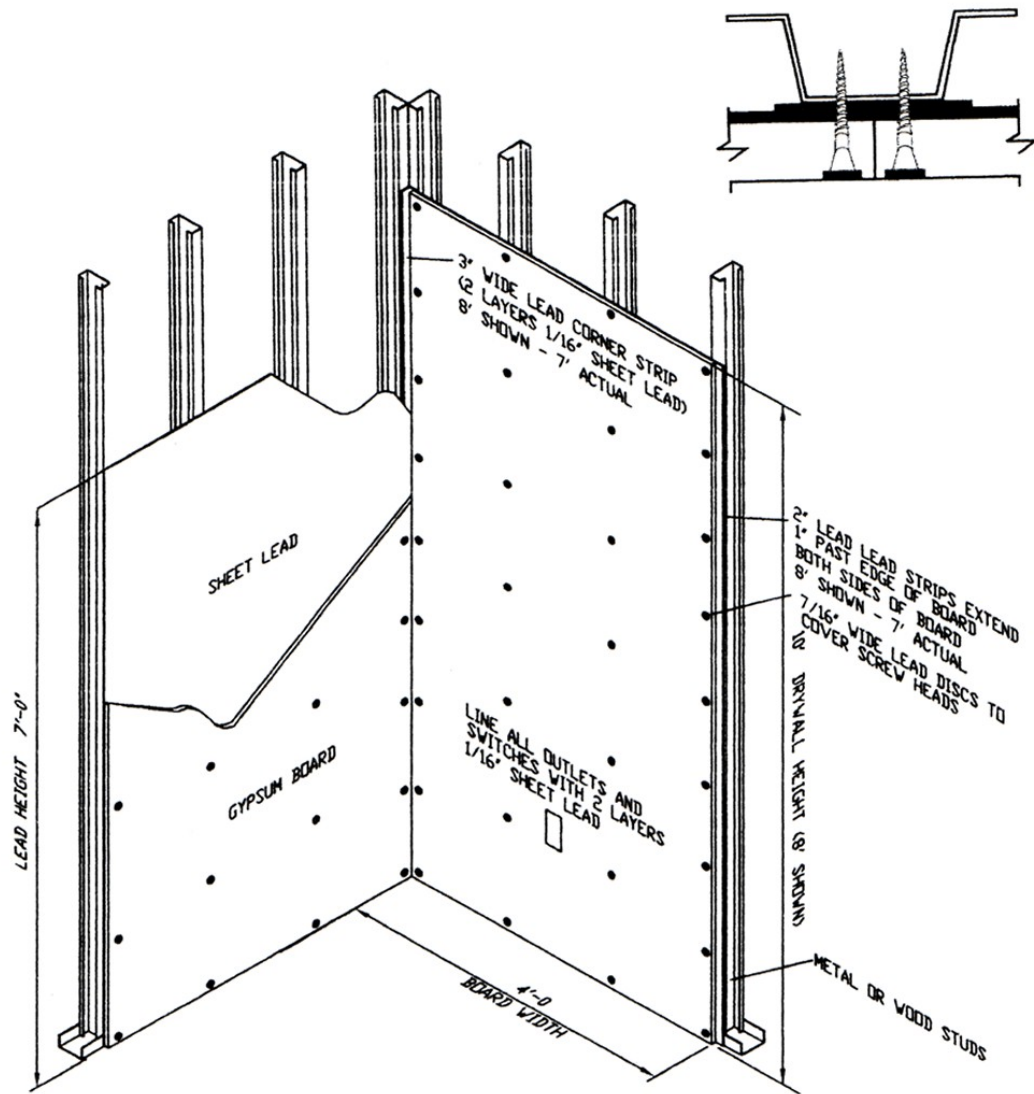
PATSON
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MATERIAL

DRYWALL :

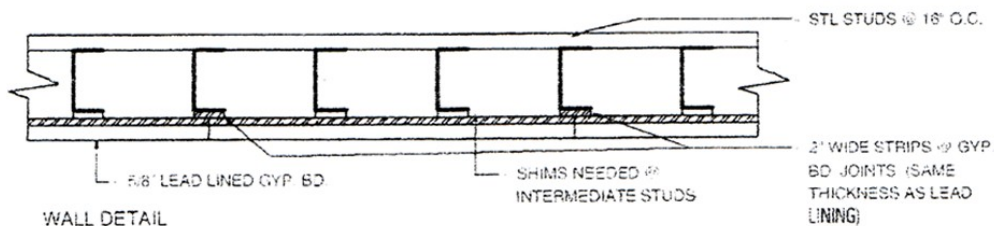
LEAD:

NOTES:



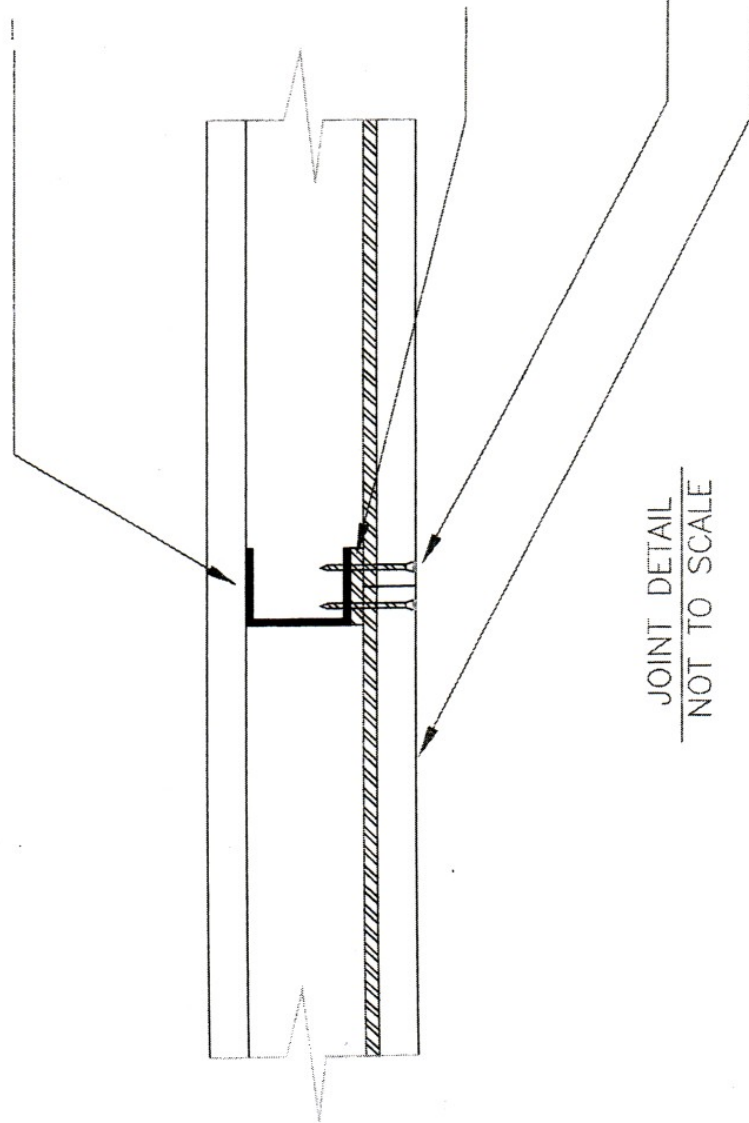
lead backed gypsum wallboard is furnished as 1/2" and 5/8" fire code gypsum board meeting classification ASTM C 36, with pure lead sheet meeting federal specification QQ-L-201 F, GRADE C, factory laminated to the back side of the gypsum panel. The lead extends over the width of the gypsum board and 2" strips are included to cover the vertical joints between each of the boards. Strips are also required at the corners.

Shielding accessories for installation include 2" lead strips, lead discs for screw penetrations, and sheet lead for backing and shielding of cutouts for electrical, plumbing, medical gas or other penetrations as well as corners

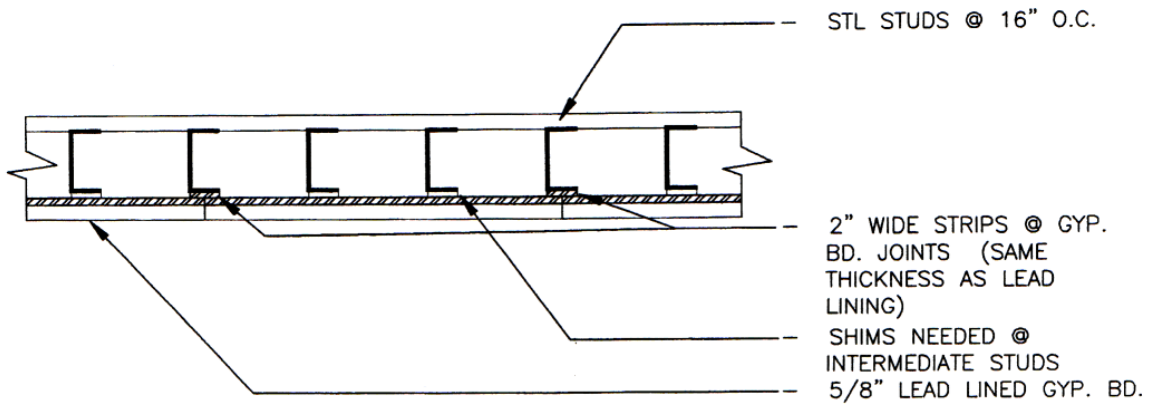


WALL DETAIL

STL STUDS @ 16" O.C.

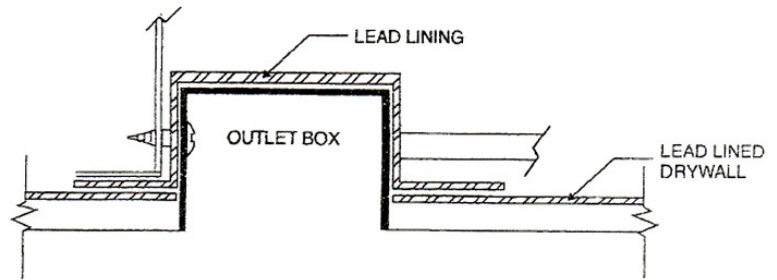


JOINT DETAIL
NOT TO SCALE

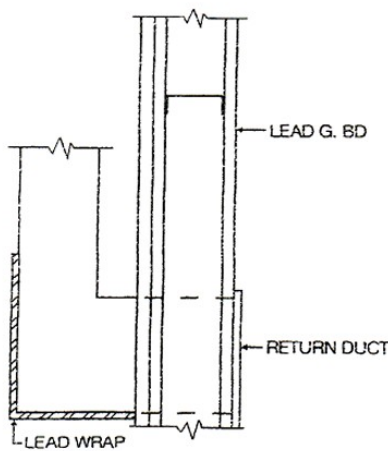


WALL DETAIL
NOT TO SCALE

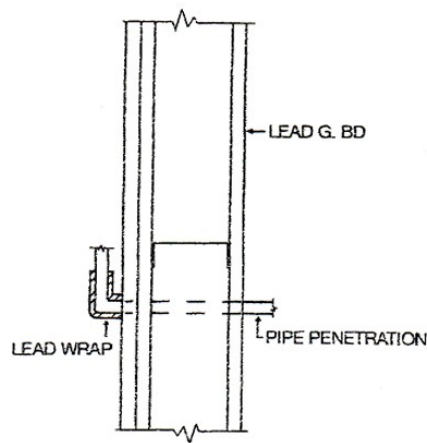
When installing lead lined drywall (lead lined sheetrock, lead lined gypsum), all cut outs and penetrations will require sheet lead to ensure continuous shielding throughout the room. Additional sheet lead can be supplied to easily allow for the proper shielding of penetrations such as receptacles, light switches, ducts and telephone/data cables



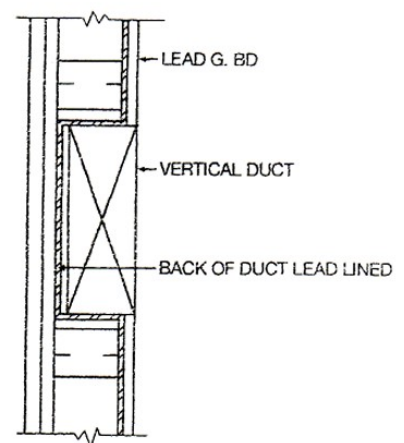
LEAD FOR OUTLET BOXES



THRU DUCT WRAP

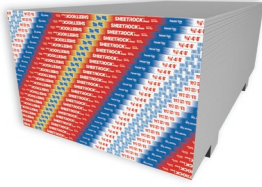


(TYP) PIPE WRAP



WALL DUCT DETAIL

Sheetrock® Gypsum Panels



Regular and Firecode® Cores

Quality interior wall and ceiling panels at low cost

- Fire-resistant dry construction
- Quick installation and decoration
- Score and snap easily
- Resist cracking and warping
- Specialized types for all systems

Description

SHEETROCK® brand gypsum panels are factory-fabricated, composed of a fire-resistant gypsum core encased in heavy natural-finish face paper 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. Long edges of panels are tapered, allowing joints to be reinforced and concealed with a USG joint treatment system.

SHEETROCK gypsum panels are available with three core types for standard construction uses.

Regular core

With a regular core, available in three thicknesses for specific purposes.

1/2" Panels Recommended for single-layer application in residential construction.

3/8" Panels Lightweight, applied principally in the double-wall system over wood framing, and in repair and remodeling.

1/4" Panels Lightweight, low-cost, utility gypsum panels, used as base layer for improving sound control in double-layer steel and wood-stud partitions, and for use over old wall and ceiling surfaces. Also for forming curved surfaces with short radii.

FIRECODE® Core

5/8" Type X Gypsum Panels Provide additional fire resistance over regular panels.

FIRECODE C Core

1/2" and 5/8" Type C Gypsum Panels Specially formulated mineral core provides fire resistance superior to that offered by FIRECODE Core gypsum panels.

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. Non-loadbearing.
4. Fire-resistance ratings achieved when assembled in accordance with UL designs.

Finishing and Decorating

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

- SHEETROCK® ready-mixed joint compounds
- SHEETROCK® setting-type joint compounds
- SHEETROCK® joint tape
- SHEETROCK® First Coat primer
- SHEETROCK™ paper-faced metal bead and trim
- SHEETROCK® TUFF-HIDE™ primer-surfacer

Painting products and systems should be used which comply with recommendations and requirements in Appendixes 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 SHEETROCK 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 (egg shell, semi-gloss 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 SHEETROCK TUFF HIDE™ primer-surfacer.

Product Data

Size: 1/4", 3/8", 1/2" and 5/8" x 48" wide; 8'–14' long. 1/2" and 5/8" also available in 54" wide.

Weight: 1/4" – 1.2 lbs/sf; 3/8" – 1.4 lbs/sf; 1/2" – 1.6 lbs/sf; 5/8" – 2.2 lbs/sf.

Thermal Resistance "R": For 1/2" thickness: 0.45 °F x ft.² x h/Btu (0.08 K x m²/W).

Thermal Coefficient of Expansion: Unrestrained: 40-100 °F (4-38 °C):
9.0 x 10⁻⁶ in./in./°F (16.2 x 10⁻⁶ mm/mm/°C) (16.2 μm/m/°C).

Hygrometric Coefficient of Expansion: Unrestrained: 5-90% r.h.
7.2 x 10⁻⁶ in./in./% r.h. (7.2 x 10⁻⁶ mm/mm/% r.h.) (7.2 μm/m/% r.h.).

Packaging: 2 panels per bundle.

Test Data

Surface Burning Characteristics: Flame spread 15, smoke developed 0.

Maximum Frame Spacing Drywall Construction	Direct Application	Panel thickness ⁽¹⁾		Location	Application method ⁽²⁾	Max. frame spacing o.c.	
		in.	mm			in.	mm
	Single-Layer	3/8	9.5	ceilings ⁽³⁾	perpendicular ⁽⁴⁾	16	406
parallel ⁽⁴⁾					16	406	
1/2		12.7	ceilings	perpendicular	24 ⁽⁵⁾⁽⁶⁾	610	
				parallel ⁽⁴⁾	16	406	
5/8		15.9	sidewalls	parallel or perpendicular	24	610	
				parallel ⁽⁴⁾	16	406	
Double-Layer	3/8	9.5	ceilings ⁽⁷⁾	perpendicular	16	406	
				sidewalls	perpendicular or parallel	24 ⁽⁸⁾	610
	1/2 and 5/8	12.7 and 15.9	ceilings	perpendicular or parallel	24 ⁽⁸⁾	610	
				sidewalls	perpendicular	24 ⁽⁸⁾	610

(1) 5/8" thickness is recommended for the finest single-layer construction, providing increased resistance to fire and transmission of sound; 1/2" for single-layer application in new residential construction and remodeling; and 3/8" for repair and remodeling over existing surfaces. (2) Long edge position relative to framing. (3) Not recommended below unheated spaces. (4) Not recommended if water-based texturing material is to be applied. (5) Max. spacing 16" if water-based texturing material is to be applied. (6) If 1/2" SHEETROCK® interior ceiling board is used in place of gypsum panels, max. spacing is 24" o.c. for perpendicular application with weight of unsupported insulation not exceeding 1.3 psf., 16" o.c. with weight of unsupported insulation not exceeding 2.2 psf. (7) Adhesive must be used to laminate 3/8" board for double-layer ceilings. (8) Max spacing 16" o.c. if fire rating required.

Compliance

Meets ASTM C1396.

Submittal Approvals:

Job Name		
Contractor		Date

Trademarks

The following trademarks used herein are owned by United States Gypsum Company or a related company: DURABOND, EASY SAND, FIRECODE, SHEETROCK, TUFF HIDE.

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.



Manufactured by United States Gypsum Company
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usg.com

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Firecheck® Type X

Fire Resistant Drywall

Description

Lafarge Firecheck Type X is a gypsum board enhanced with glass fibers to offer greater strength and fire protection for interior walls and ceilings. The board has a non-combustible gypsum core and paper facings on the front (ivory), back, and long edges. It is available in several edge treatments, and the ivory facing paper will accommodate a variety of decorative treatments after proper surface preparation.

Firecheck Type X is designed for use in applications that require direct mechanical attachment to wood or metal framing or as a component of fire-rated assemblies.

May also be used as a thermal barrier in roof assemblies when specified by the roofing manufacturer.

To ensure optimum Type X fire resistance performance, follow recommended installation procedures. When used in a certified sound rated assembly, Firecheck Type X will also contribute to required sound transmission classification (STC) values.

Note: Firecheck Type X is suitable for interior applications only, and should not be used where temperatures exceed 125°F for extended periods or in areas of extreme humidity. Likewise, the board should be protected from exposure to adverse conditions during storage and construction.

Physical Characteristics

Core: Non-combustible, dimensionally stable, inert gypsum enhanced with glass fibers for strength and fire resistance

Paper: 100% recycled; front and edges = ivory, back = gray

Long Edges: Square, tapered, round, or beveled

Available Sizes:

Nominal thickness	5/8 in.
Nominal width	4 ft
	54 in.
Standard length	6 ft to 16 ft
Nominal weight	2.26 lbs/ft ²

Standards and Codes

Firecheck Type X is formulated to perform in accordance with ASTM C 1396 and C 36, Type X; *Federal Specification SS-L-30d, Type III, Grade X; and CAN/CSA-A82.27-M, Type X.

Technical Specifications

UL classified for surface burning (File No. R16102)

(tested in accordance with ASTM E 84)

Flame spread = 10; Smoke developed = 0

Core combustibility

(tested in conformance with ASTM E 136)

Non-combustible

UL classified for fire resistance

(File No. R18482) as Type LGFC6A

Installation

Install according to Gypsum Association GA-201, GA-216, or ASTM C 840. For fire-rated construction, consult GA-600 Fire Resistance Design Manual and UL Fire Resistance Directory. Refer to GA-214 for finishing recommendations.

Handling Recommendations

Stack flat, keep dry, and lift (do not drag) to avoid scuffing. Avoid damage to edges. For detailed recommendations, refer to GA-216 and GA-801.

Safety Precautions

Wear safety glasses and NIOSH-approved respirators during cutting, breaking, rasping, or other dust-producing activities.

Material Safety Data Sheets (MSDS) are available for all Lafarge products upon request.

*The federal specification for gypsum board, SS-L-30d was withdrawn in 1984. It is provided here for information only and should not be referenced for new construction.

Job Name: _____

Contractor: _____

Date: _____

09/06



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Lafarge Canada Inc.
Montreal, Quebec H3B 1L7
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Drywall Products

Gypsum board is virtually indispensable for all types of buildings; therefore, Lafarge offers a complete line of products that are available in a variety of types and sizes. Products listed below can be used for a wide range of applications. For a more comprehensive look at our product offering please refer to the Lafarge Gypsum Products catalog, which is available by contacting the Lafarge Customer Value Center at 1-800-237-5505.

	CORE TYPE	DIMENSIONS			EDGE					STANDARDS		
		L	W	TH	Tapered Square	Round Edge	Double Beveled	Beveled	ASTM ¹	FEDERAL ²	CSA ³	
Drywall Regular Drywall For interior walls and ceilings. 	Regular	8' std.	4'	1/4"	•				C 1396	SS-L-30d	A82.27-M91	
		8' to 12'	4'	3/8"	•				C 36	Type III		
		8' to 16'	4', 54"	1/2"	•	•					Grade R	
 Regular Drywall with Mold Defense™* Same attributes as Regular Drywall with the addition of a mold and mildew resistant paper. 	Regular	8' to 16'	4', 54"	1/2"	•	•			C 1396	SS-L-30d	A82.27-M91	
									C 36	Type III		
									D 3273	Grade R		
Firecheck® Type X For interior walls and ceilings. Manufactured with a non-combustible gypsum core meeting Type X requirements. Can be used in fire-rated assemblies. Also conforms to ASTM C 442 Type X for use as a backer board. 	Type X	6' to 16'	4', 54"	5/8"	•	•	•	•	C 1396	SS-L-30d	A82.27-M91	
									C 36	Type III	Type X	
										Type X	Grade X	
 Firecheck® Type X with Mold Defense™* Same attributes as Firecheck Type X with the addition of a mold and mildew resistant paper. 	Type X	6' to 16'	4', 54"	5/8"	•	•	•	•	C 1396	SS-L-30d	A82.27-M91	
									C 36	Type III	Type X	
										Type X	Grade X	
Firecheck® Type C For interior walls, ceilings and area separations. For applications requiring extended fire endurance ratings. Also conforms to ASTM C 442 Type X for use as a backer board. 	Type C	6' to 16'	4', 54"	1/2"	•	•	•	•	C 1396	SS-L-30d	A82.27-M91	
		6' to 16'	4', 54"	5/8"	•	•	•	•	C 36	Type III	Type X	
										Type X	Grade X	
Watercheck® For interior walls, water-resistant applications. (Not for continuous high moisture or wet areas.) Appropriate as a backing for ceramic tiles in bath or shower areas. 	Treated	8', 10', 12'	4'	1/2"	•				C 1396	SS-L-30d	A82.27-M91	
									C 630	Type VII		
											Grade W	
Fire Watercheck® Type X For interior applications requiring both fire and water resistance. 	Type X Treated	6' to 12'	4'	5/8"	•				C 1396	SS-L-30d	A82.27-M91	
									C 630	Type VII	Type X	
										Type X	Grade W, X	
Firecheck® Shaftliner Type X For fire-rated shaftwalls and area separation walls. 	Type X	6' to 16'	2'	1"			•		C 1396	SS-L-30d	A82.27-M91	
									C 442	Type IV	Type X	
										Type X	Grade X	

* See Mold Defense disclaimer on next page.

- ASTM C 1396 is a new specification including all gypsum board types.
- The federal specification for gypsum board, SS-L-30d was withdrawn in 1984. It is provided here for information only and should not be referenced for new construction.
- The full designation of the CSA standard for gypsum board is CAN/CSA-A82.27-M91.

Installation shall be in accordance with:

- GA-216 "Recommended Specification for Application and Finishing of Gypsum Board" published by the Gypsum Association.
- ASTM C 840 "Application and Finishing of Gypsum Board." CAN/CSA-A82.31-M "Gypsum Board Application."
- ASTM C 754 "Installation of Steel Framing Members to Receive Screw-Attached Gypsum Board."

Some products are available only in particular geographic areas. Certain products are available only upon special order. For orders and inquiries, please call the appropriate Customer Value Center toll free number listed on the back cover.