

SPECIFICATIONS FOR LEAD LINED FIRECODE DRYWALL

GENERAL

Patson Lead, Inc. fabricates lead lined fire resistant drywall to the following specifications. All work conforms to or exceeds the requirements of the National Bureau of Standards, as well as, all state specifications in accordance with federal radiological health programs.

DRYWALL

Standard board is furnished as either ½" or 5/8" fire-resistant Type X, ASTM C 36. Width is 48" x length required. Individual manufacturers material specifications per attached sheets. Plaster (blue) board, moisture-resistant (green) board and mildew-resistant board are also available.

SHEET LEAD

Each piece of lead lined drywall is backed by a single, unpierced sheet of lead. The lead is laminated to the drywall using a water-based acrylic polymer adhesive. The lead backing meets Federal Specification QQ-L-201f. The height of the lead is as requested, from 84" to full height of drywall. The standard width of the sheet lead is 49" for lead less than 1/8" thick.

ACCESSORIES

Each piece of lead lined drywall (less than 1/8") has a one inch lead overlap to act as the joint shielding. Joint strips 2" wide are supplied for lead 1/8" and over. Lead discs (5/16" dia.) to cover the head of the drywall screws are also included. Where applicable, 3" wide strips may be ordered to bend into angles for corner strips. 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.

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. (see chart) All joints, cutouts and 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.

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. Fire resistant plywood is available. Depending upon the weight, it may be advisable to cut the sheets into smaller, more manageable pieces. In some applications using

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thicker lead it may be desirable to layer the lead to attain the thickness required, and then apply the drywall over it.

SPECIAL APPLICATIONS (cont.)

Patson Lead can also apply lead to the back of a variety of architectural panels for installation over existing walls or use in construction of modular/ mobile units.

ADHESIVE

The adhesive used in the manufacture of lead clad drywall is a water emulsion thermoplastic (modified acrylic) adhesive. This product is formulated to give good adhesion to the lead and drywall, while avoiding the use of flammable or chlorinated solvents. The adhesive is recognized under UL 465/ UL 727 and tested under ASTM E-84. Temperature range is -30⁰ to 300⁰ F and adhesive has excellent water/ moisture resistant qualities.

WARRANTY

Patson Lead, Inc., guarantees and warrants all materials for workmanship and against any defects and nonconformity to specifications for a period of one year. Defective or nonconforming materials will be replaced during that period, upon written notice from the customer. The effective date of this warranty shall be the original invoice date for materials supplied. Patson Lead, Inc. supplies materials only and does not warrant the installation or against damage to the product during installation.

FABRICATOR INFORMATION

The lead lined products provided by Patson Lead, Inc. are fabricated at our shop in Independence, KY using quality materials and workmanship. Patson Lead, Inc. was founded in 1988 by well- established professionals in the lead industry.

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APPROXIMATE LEAD LINED DRYWALL WEIGHTS FOR SELECT SIZES

	5/8 x 4 x 8 ¹	5/8 x 4 x 9 ¹	5/8 x 4 x 10 ¹	LEAD ONLY 2,3,4
1/32" X 7'	126#	135#	144#	56#
1/32" X 8'	134#	143#	152#	64#
1/32" X 9'	142#	151#	160#	72#
1/32" X 10'	150#	159#	168#	80#
1/16" X 7'	175#	184#	193#	105#
1/16" X 8'	190#	199#	208#	120#
1/16" X 9'	205#	214#	223#	135#
1/16" x 10'	220#	229#	238#	150#
1/8" x 7'	287#	296#	305#	217#

¹ 5/8" drywall weighs 2.2# per square foot

² 1/32" lead = 2# p.s.f.

³ 1/16" lead = 3.75# p.s.f.

⁴ 1/8" lead = 7.75# p.s.f.

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SHEET LEAD THICKNESS CHART¹

LBS. per S.F. ²	FRACTION ³	DECIMAL ³	MILLIMETER
1	1/64	.0156	.3969
2	1/32	.0313	.7950
2.5	1/24	.0420	1.067
3	3/64	.0470	1.193
4	1/16	.0625	1.587
5	5/64	.0780	1.981
6	3/32	.0940	2.387
8	1/8	.1250	3.175
10	5/32	.1562	3.967
12	3/16	.1875	4.762
16	1/4	.2500	6.350
24	3/8	.3750	9.525
30	1/2	.5000	12.70
46	3/4	.7500	19.05
60	1	1.000	25.40

¹ Common available lead sizes. Not all sizes recommended for drywall.

² Nominal

³ Inches

NOTES ON INSTALLING SHEET LEAD DIRECTLY TO STUDS

1. Shield behind all potential penetrations using the appropriate lead thickness.
2. Mark a level line across the top of each wall to be shielded at the height specified for the lead shielding.
3. Unroll an edge on one roll of sheet lead about six inches and lift this edge to the level line you have marked.
4. Attach lead to studs along this top edge using drywall screws.
5. Unroll lead the rest of the way down the wall.
6. Proceed with the remaining lead sheets in this manner, making sure to overlap adjoining seams.
7. Cut out around all penetrations.
8. Install drywall over the lead sheets using lead discs over the screw heads.

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JOB INFORMATION

PROJECT: DATE:

CUSTOMER:

MATERIALS

DRYWALL -

LEAD -

MISC -

Submitted by: Mark A. Cooper
Patson Lead, Inc.