CSI DIV. 9

wallboard

products | systems

FLINTKOTE®

CSI DIV. 9

CSI DIV. 9

gypsum wallboard

products/systems

FLINTKOTE®

CSI DIV. 9

gypsum wallboard products systems . . .

. . . are among the most versatile building materials on the market today, being used for construction of numerous types of walls, partitions and ceilings. Gypsum Boards consist of a gypsum core sandwiched between specially selected outer papers, giving them strength well in excess of that required by ASTM and Federal Specifications. Their universal acceptance stems from a relatively low cost, and excellent performance in providing fire protection for both wood and steel construction, and in preventing the transmission of unwanted sound through walls and ceilings. FLINTKOTE Gypsum Wallboards may be used in certain exterior locations, when special recommendations are followed.

The "selector chart" and descriptions to the right will provide you with a quick picture of the range, types and characteristics of FLINTKOTE'S family of Gypsum Board Products.

Fire Resistance — All FLINTKOTE Gypsum Wallboard Products are highly resistant to fire. FLINTKOTE Super FIRE-HALT Gypsum Wallboard Products are recommended where one hour or greater fire resistance is required. See tabulation of basic data on pages 10 and 11 for construction fire ratings.

Insulation — FLINTKOTE Insulating (Foil-Back) Gypsum Wallboard with aluminum foil backing effectively helps to keep warm air indoors during the winter and hot air outdoors in the summer. It serves as an excellent vapor barrier by preventing condensation from developing in the stud spaces of walls.

Decoration — FLINTKOTE Gypsum Wallboard is an excellent base for decorative paints, wallpapers, texture finishes, fabrics and vinyl wall coverings. Attractive FLINTKOTE Vinyl-Covered and Wood Grain Gypsum Wallboards are available to meet the broad demands of the buying public to complement their decorating schemes for new construction and remodeling.

Application and Finishing — Recommended application and finishing of FLINTKOTE Gypsum Wallboard Products are in accordance with ANSI A97.1 and specifications of The Flintkote Company.

Limitations — FLINTKOTE Gypsum Wallboard Products are not recommended in locations exposed directly to water.

This catalog contains information for comparison and selection, as well as details and specifications. It cannot, does not, answer your every question. It has been organized with you the user in mind.

If you need answers, or additional information on the contents, we suggest you contact one of the offices located near you (see back cover for phone numbers), or contact the home office.

selector chart

description

- **FLINTKOTE Gypsum Wallboard** — Plant fabricated large, lightweight panels serve many needs. Tapered edges permit smooth joint treatment and concealment. SMOOTH JOINT (SJ) wallboards have a tapered/beveled edge to minimize ridging and beading along the edges of board finished with tape and joint compound.

- **FLINTKOTE Insulating (Foil-Back) Gypsum Wallboard** — Affords an insulation ("C") factor of 0.25 to 0.30 when used with an air space for inside walls and a perm rating of less than 0.3. (FHA requires foil-side to studs and minimum ¾" air space.)

- **FLINTKOTE Gypsum Backing Board** — Especially designed for use in two-ply construction (Double Wall) or as a base for acoustical tile. Gray face paper permits easy lamination of gypsum face panels to backing board with FLINTKOTE Laminating Compound.

- **FLINTKOTE Gypsum Sound Deadening Board** — Used as an underlayment for ½" and ⅝" gypsum wallboards for good fire resistance and excellent reduction in sound transmission. ¼" thick, 4' wide.

- **FLINTKOTE Insulating (Foil-Back) Backing Board** — Aluminum foil is applied to back of regular gypsum backing board and provides an effective vapor barrier and excellent insulating qualities.

- **FLINTKOTE Wood Grain Gypsum Wallboard** — Available in several rich tones and subtle wood grain patterns to enhance decor or color scheme of any room.

- **FLINTKOTE Vinyl-Covered Gypsum Wallboard** — Decorative wallboard is distinguished by its pure vinyl fabric surface and comes in a vast assortment of attractive colors and textures. All are completely washable. Treated with plasticizers, pigments and stabilizers for long life. Scuff resistant and won't chip or peel.

- **FLINTKOTE STA-DRI™ Gypsum Wallboard** — Manufactured with a specially treated water, moisture resistant gypsum core and green face paper. STA-DRI provides a permanent backing for ceramic, metal and plastic tile and prefinished panels. Super FIRE-HALT STA-DRI Gypsum Wallboard (½" or ⅝") is available for assemblies requiring added fire protection.

- **FLINTKOTE Super FIRE-HALT® Gypsum Wallboard** — Combines the advantages of regular gypsum wallboard with extra fire resistant characteristics. A specially formulated core affords increased fire resistance ratings from 1 hour to 4 hours when used in recommended systems.

- **FLINTKOTE Fire Block Gypsum Board** — Designed for use over roof rafters beneath sheathing. Gives excellent resistance to fire from without. Of particular value beneath strip sheathing and combustible roof covering.

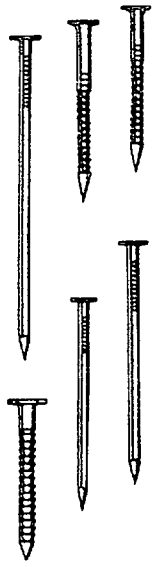
- **FLINTKOTE Gypsum Coreboard** — Used as the core material in solid, double and triple solid partitions. Additional layers of gypsum wallboard are normally laminated to coreboard to complete assembly.

- **FLINTKOTE FIRE-HALT® Gypsum Sheathing** — Specially treated core and face paper combine to afford excellent water resistance. Large panels are applied easily and quickly as exterior sheathing.

PRODUCT	ASTM COMPLIANCE	FEDERAL COMPLIANCE SPECIFICATION SS-L-30c					THICKNESS	WIDTH	(1) LENGTH	(2) EDGE	FINISH
		TYPE	GRADE	CLASS	FORM	STYLE					
Gypsum Wallboard	C 36	III	R	1	a	3	¼", ⅜" ½", ⅝"	4'	6'-16'	(4) Tapered	Manila Paper
Insulating (Foil-Back) Gypsum Wallboard (3)	C 36	III	R	1	c	3	⅜", ½", ⅝"	4'	6'-16'	(4) Tapered	Manila Paper
Gypsum Backing Board (3)	C 442	IV	R	1	a	1	⅜", ½", ⅝" ½", ⅝"	4' 2'	6'-12' 8'	Square Tongue & Groove	Gray Paper
Gypsum Sound Deadening Board	C 442	IV	R	1	a	1	¼"	4'	8'	Square	Gray Paper
Insulating (Foil-Back) Backing Board (3)	C 442	IV	R	1	c	1 2	⅜", ½", ⅝" ½", ⅝"	4' 2'	6'-12' 8'	Square Tongue & Groove	Gray Paper
Wood Grain Gypsum Wallboard (3)	C 36	III	R	3	a	4	⅜", ½"	4'	8'-10'	Beveled	Printed Simulated Wood Grain
Vinyl-Covered Gypsum Wallboard (3)	C 36	III	R	3	a	4	⅜", ½", ⅝"	4'	8'-10'	Beveled	Vinyl-Covered
STA-DRI Gypsum Wallboard (3)	C 630	II	W	2	a	3	½", ⅝"	4'	8'-10'-12'	Tapered	Green Water Resistant Paper
Super FIRE-HALT Gypsum Wallboard	C 36 (Type X)	III	X	1	a	3	½", ⅝"	4'	6'-16'	(4) Tapered	Manila Paper
Fire Block Gypsum Board	C 442	IV	X	1	a	1	½"	2'	8'-10'	Square	Brown Water Resistant Face Paper
Gypsum Coreboard	C 442	IV	R	1	a	2	1"	2'	8'-10'-12'	Tongue & Groove	Gray Paper
FIRE-HALT Gypsum Sheathing	C 79	II	W	2	a	2	½"	2'	8'	Tongue & Groove	Brown Water Resistant Paper
			W	2	a	1	½"	4'	8'-9'	Square	

NOTES: (1) Other lengths available on special order.
(2) Other edges available on special order.
(3) These products also available with a Super FIRE-HALT core formulation.
(4) Available with (SJ) Tapered/Beveled edge.

attachment/application

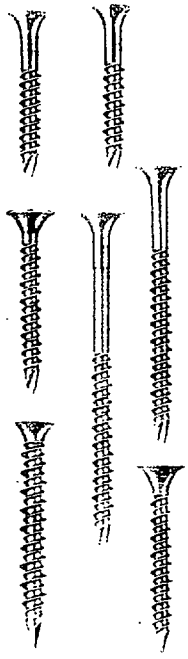


nails — The FLINTKOTE annular ring nail was developed to reduce or eliminate "nail popping." It is the shortest nail recommended with maximum holding power. This improved nail has greater holding ability than a cement coated nail of the same length. The annular ring nail's high carbon-steel content enables it to be driven fast. It meets the requirements of ASTM Designation C 380 "Nails for Application of Gypsum Wallboard."

NOTE: All FLINTKOTE nails comply with the performance standards of the Gypsum Association. However, selection of the proper nail for each installation is most essential — particularly for fire-rated constructions.

For nail sizes and spacing in fire and sound rated assemblies see "Guide to Fire Resistance and Sound Transmission Ratings" pages 10 and 11.

All wallboard must be drawn tightly against framing so there can be no movement of board on nail shank. In area adjacent to point of nailing, board must be held firmly against framing when nail is driven home. All nails shall be driven so that nailhead rests in a slight dimple formed by crowned head of driving tool without breaking paper.



screws — FLINTKOTE Drywall Screws are specially designed for all types of gypsum wallboard applications, whether the framing is metal or wood or application is gypsum to gypsum. Made of high-strength carbon steel, FLINTKOTE screws drive fast. A phosphate over-coating serves as a rust-inhibitor. This avoids unsightly rust marks. The possibility of damaging the wallboard face paper is avoided by the bugle head. All depressions are uniform for easier spotting. FLINTKOTE screws designed for use with metal studs have a self-tapping feature for rapid sure application.

NOTE: It is recommended that all screws be mechanically driven, for best results. Also, screws — especially for fire-rated constructions — should be carefully selected and properly applied.

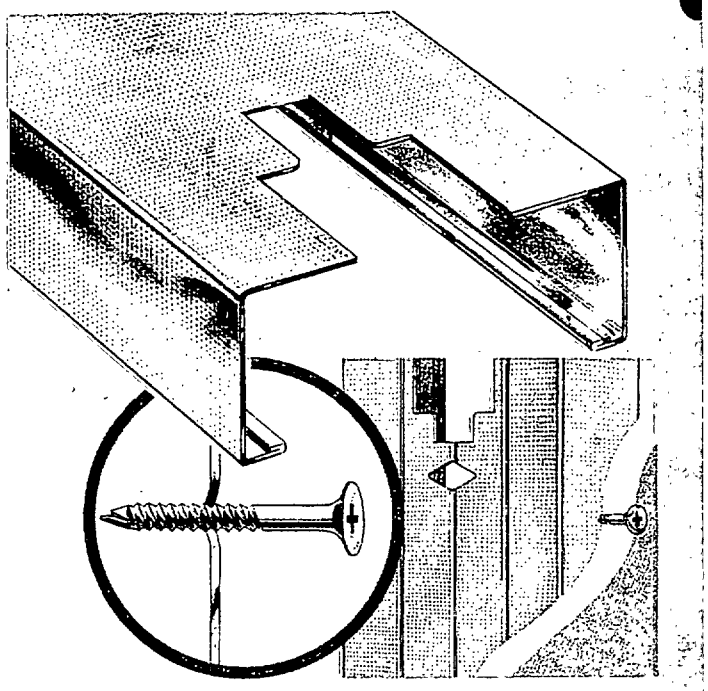
For screw lengths and spacing in fire and sound rated assemblies see "Guide to Fire Resistance and Sound Transmission Ratings" pages 10 and 11.

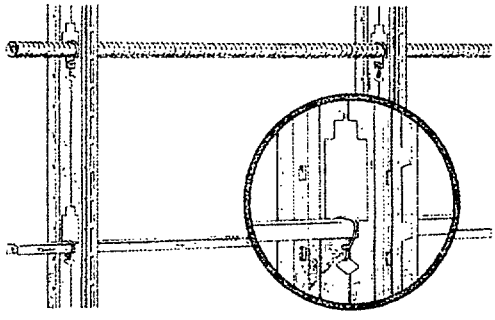
adhesive nail-on method — This system of application provides for adhesive application of wallboard to wood framing with supplemental fastening. In addition to qualities provided by conventional fastening, the adhesive nail-on method:

- Reduces fasteners about 50%, reduces incidence of loose board and minimizes nail or screw head concealment.
- Because it provides a continuous area of contact between framing and wallboard, sturdier walls more resistant to sound transmission are to be expected.

A continuous bead of adhesive shall be applied to center of the face of all studs, joists, furring, etc. Where two adjacent pieces of wallboard join (ends or edges) on a framing member, a serpentine or zigzag bead of adhesive shall be applied to provide proper bond. Size of adhesive bead shall be approximately ⅜" by ¼" and cover at least 1" of framing member with 1/16" thickness after wallboard is in place. For predecorated wallboard, parallel beads of a nonvolatile solvent adhesive shall be applied along each edge of face of framing member where wallboard joints occur.

Nails shall be spaced no further than 16" o.c. on ceilings and 24" o.c. on sidewalls. Field nailing may be omitted on sidewalls if appropriate means (such as bracing or temporary nailing) are used to insure full contact of wallboard until adhesive develops required bond strength.





Suggested detail for horizontal bracing when required for steel stud partition.

TABLE 1 * — Allowable Interior Partition Heights Based on Structural Properties of .022" (25 Gauge) Thick Galvanized Steel Studs to Bending Limits with 5 Lbs./Sq. Ft. Horizontal Load.

STUD SPACING	STUD DEPTH					
	1⅝"	2½"	3¼"	3⅝"	4"	6"
16"	13'-1"	15'-2"	18'-0"	19'-5"	20'-10"	28'-0"
24"	9'-3"	12'-4"	14'-8"	15'-10"	17'-0"	22'-8"

TABLE 2 * — Allowable Interior Partition Heights Based on Wallboard over .022" (25 Gauge) Thick Galvanized Steel Studs Acting as a Composite Section with a 5 Lbs./Sq. Ft. Horizontal Load and a Deflection Limit of 1/120 Height.

STUD SPACING	FACING ON EACH SIDE	STUD DEPTH (In Inches)					
		1⅝"	2½"	3¼"	3⅝"	4"	6"
16"	½"-one-ply	11'-0"	14'-8"	17'-10"	19'-5"	20'-8"	18'-10"
24"	½"-one-ply	10'-0"	13'-5"	16'-0"	17'-3"	18'-5"	17'-8"
24"	½"-two-ply	12'-4"	15'-10"	18'-3"	19'-5"	20'-8"	19'-0"

Development of the power driven self-tapping screw (Type S), Screw-On Studs, and Furring Channels has revolutionized application of gypsum wallboard for noncombustible construction.

Wallboard "stays put" when applied to metal framing members with Type S screws.

Versatility of the Screw-On System permits a range of choices in selecting economical fire and sound rated partition and ceiling assemblies to meet construction requirements. Systems also provide effective fire-rated protection for columns and beams.

metal studs and track

Non-load bearing Screw-On Studs† and Track are roll formed from 0.0220" galvanized Grade A steel conforming to ASTM A 446-67 (hot dipped); or 0.0209" galvanized Grade C steel conforming to ASTM A 245-64 with electro galvanizing conforming to ASTM A 164-55 Type RS. Hot dipped galvanizing is recommended for areas of high humidity and salt air. Electro galvanizing is acceptable in all other areas.

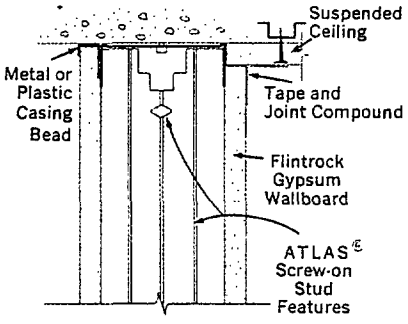
Punch-outs are provided in web of stud to accommodate ¾" or 1½" stiffening channels, and they may be utilized in installing horizontal runs of electrical wiring or plumbing lines.

Screw-On Studs are available in widths of 1⅝", 2½", 3¼", 3⅝", 4", 6".

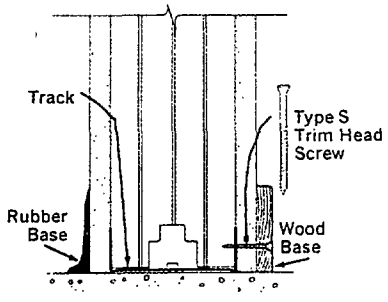
†NOTE: Heavy Duty Studs of .0396 metal (20 gauge) are available. They are recommended for exterior walls and partitions of greater height limits than permitted for 25 gauge studs and for greater rigidity around door and window openings.

details

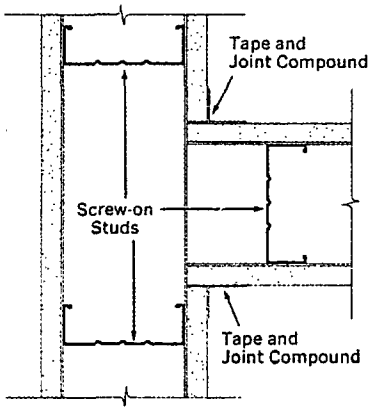
CEILING DETAIL



FLOOR DETAIL AND BASES



INTERSECTION



CORNER DETAIL

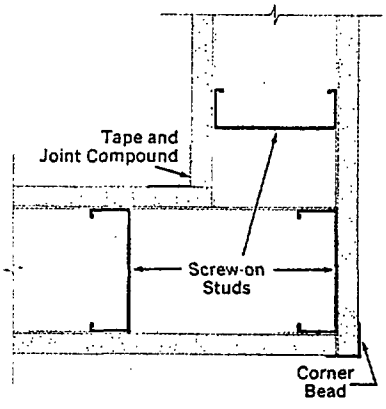


TABLE 3 * — Allowable Partition Heights Based on General Accepted Performance.

STUD WIDTH	STUD SPACING	LIMITING HEIGHT (1) SINGLE LAYER (EACH SIDE)	LIMITING HEIGHT (1) DOUBLE LAYER (EACH SIDE)
1⅝"	16" o.c.	8'-0"	10'-0"
	24" o.c.	8'-0"	10'-0"
2½"	16" o.c.	13'-0"	15'-0"
	24" o.c.	12'-0"	14'-0"
3⅝"	16" o.c.	17'-0"	19'-0"
	24" o.c.	16'-0"	18'-0"

(1) Where studs are continuous through suspended ceilings to underside of floor or roof above, and ceiling adds stability to the partition, or studs are adequately braced from a point at or below specified limiting height, limiting heights may be increased 50%.

TABLE 4 * — Permissible Spans for .022" (25 Gauge) Thick Galvanized Steel Studs Used as Ceiling Joists Based on Stud Properties Only.

JOIST SPACING	DEFLECTION LIMIT	STUD DEPTH 1⅝"	2½"	3¼"	3⅝"	4"	6"
16"	Bending	6'-11"	9'-3"	11'-0"	11'-10"	12'-9"	12'-10"
	Span/360	5'-7"	7'-0"	8'-8"	9'-5"	10'-2"	14'-2"
12"	Bending	8'-11"	10'-8"	12'-8"	13'-8"	14'-8"	17'-0"
	Span/360	5'-7"	7'-9"	9'-6"	10'-4"	11'-2"	15'-7"

*Consult local code authority for governing criteria.



The TRIMWALL™ Demountable Partition is a non-progressive partition system utilizing a steel framework, fire resistant gypsum wallboard and polyvinyl chloride receivers and batten strips. Anodized aluminum trims and door frames are available for various partitioning requirements.

The TRIMWALL Partition is adaptable to full floor-to-ceiling height, cornice height and rail partitions. Side lights and glass panels can be installed for special requirements.

The TRIMWALL Partition can be assembled with FLINTKOTE Vinyl-Covered Gypsum Wallboard panels or FLINTKOTE Gypsum Wallboard to receive any type of decoration.

Erection can proceed with installation of the wallboard on one side alone to accommodate an immediate tenant. The opposite side can be finished later with FLINTKOTE Vinyl-Covered Wallboard to suit a future tenant.

The framework of Screw-On Steel Studs permits easy installation of utility lines running vertically or horizontally.

Demountability and re-usability of the partition components are the system's outstanding features. Components not cut to special size can still be used after many relocations.

SOUND & FIRE RATINGS

STC	Lab Ref	Construction	Fire Rating	Lab Ref
35-39	CK	2½" studs 24" o.c. ½" FLINTKOTE GWB	NA	—
40-44	CK	2½" studs 24" o.c. ½" FLINTKOTE GWB Mineral Fiber Insulation in stud cavity	NA	—
35-39	CK	2½" studs 24" o.c. ½" Super FIRE-HALT GWB	45-min.	Est.
40-44	CK	2½" studs 24" o.c. ⅝" Super FIRE-HALT GWB Mineral Fiber Insulation in stud cavity	1 hour	UC 9/69

■ **LIMITATIONS** — Non-load bearing. Partition height limit: 10'.

specifications

Materials — TRIMWALL Aluminum Components are extruded shapes — minimum thickness of major components is .050". Finishes — standard satin anodized. Available in Duronodic or equal finishes.

TRIMWALL Receiver #215 is a PVC extrusion designed to grip the flange of Screw-On Stud and provide a slot for the "T" Batten.

TRIMWALL "T" Batten #216 is a PVC extrusion designed to mate into the slot of the Receiver, hold the board tightly to the frame, and cover the joint. Finishes — off-white, brown and black. Other colors on special order.

FLINTKOTE Gypsum Wallboard — manila faced or vinyl surfaced, beveled edge, ½" or ⅝" thick, 48" width, standard lengths.

Metal Studs and Track — Non-load bearing Screw-On Studs and Track are roll formed from 0.0220" galvanized Grade A steel conforming to ASTM A 446-67 (hot dipped); or 0.0209" galvanized Grade C steel conforming to ASTM A 245-64 with electro galvanizing conforming to ASTM A 164-55 Type RS. Hot dipped galvanizing is recommended for areas of high humidity and salt air. Electro galvanizing is acceptable in all other areas.

SCREW — Type S screws specially designed in point, thread, and head, for applying gypsum wallboard to metal studs.

Adhesive — rubber or resin base — H. B. Fuller Co., Miracle Adhesives Corp., Minnesota Mining Co., or equal. Do not use adhesives with solvent in applying vinyl surfaced wallboard.

General Framing — Chalk lines locating partitions snapped on floor in accordance with plans. Partition intersections and openings marked.

Aluminum Ceiling Channel #201 secured with concrete nails, ackermann fasteners, toggle bolts or other acceptable fasteners, spaced 24" o.c.

2½" Screw-On Track secured with fasteners to floor 24" o.c.

Screw-On Studs, spaced 24" o.c., are friction-fitted in track and ceiling channel. (Note — do not fasten studs to track except at openings.)

Headers over door or borrowed light openings made of track sections, cut to permit right angle bend.

Short Studs, friction-fitted in headers.

TRIMWALL Receiver #215 installed on stud at each wallboard joint.

Installation — Initial panel fitted to existing wall with exposed edge plumb, slipped into ceiling channel and secured to bottom track with 1" Type S screws, spaced 24" o.c.

TRIMWALL Receiver #215, applied to stud, positioned at edge of wallboard.

Intermediate Studs receive bead of adhesive.

TRIMWALL "T" Batten #216 driven into the Receiver with rubber mallet. Panel is drawn tight to framework. (Note — If wallboard is to be painted, hold panel in place with 1" Type S screws at edges, mid height of panel. Apply TRIMWALL "T" Batten after the paint is dry.)

For One Hour Fire-Rated Partition: ⅝" Super FIRE-HALT Gypsum Wallboard is applied with 1¼" Type S screws driven along the perimeter of the wallboard.

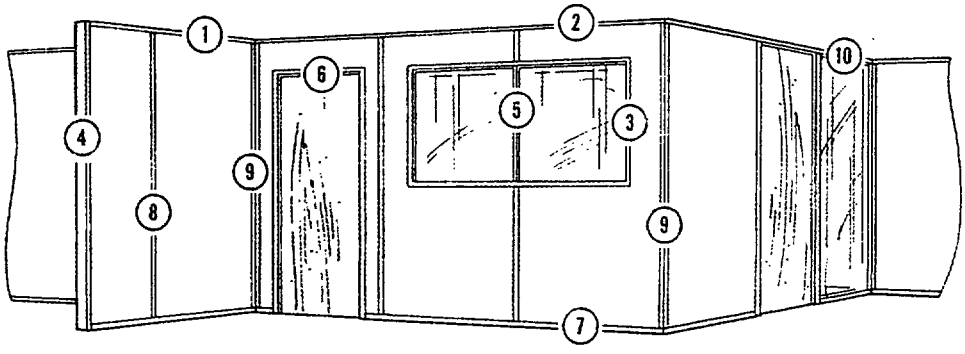
Prior to installation of second side of partition a 2½" thick, friction-fitting mineral fiber insulation batt is installed in stud cavity.

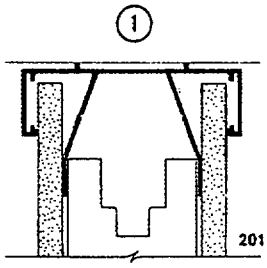
Door frames, glass railings and partition terminals are installed as detailed on opposite page.

Aluminum trim #209 or #210 may be used at ceiling intersection where metal ceiling track is installed.

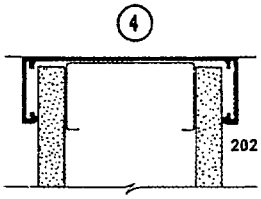
Aluminum base #208 may be applied directly over the TRIMWALL "T" Batten.

details

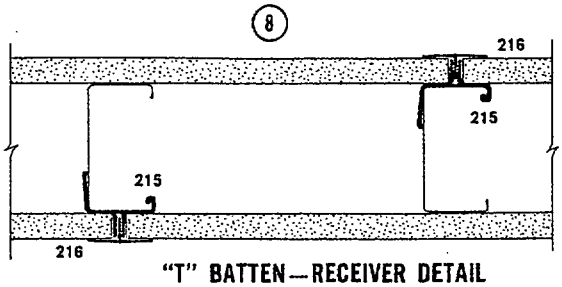




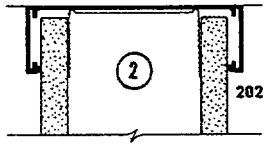
CEILING DETAIL



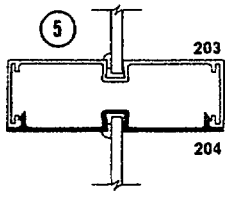
FINISHED END DETAIL



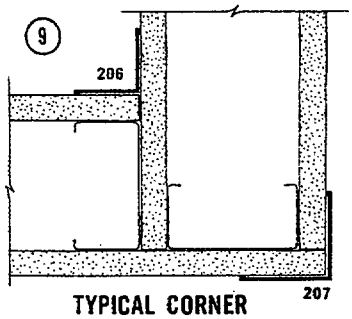
"T" BATTEN—RECEIVER DETAIL



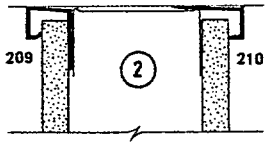
ALTERNATE CEILING DETAIL



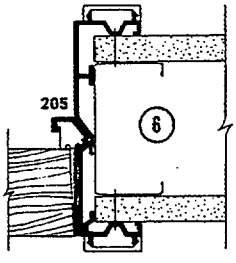
TYPICAL MULLION



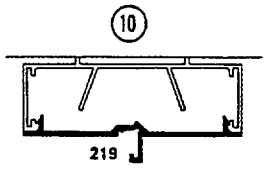
TYPICAL CORNER



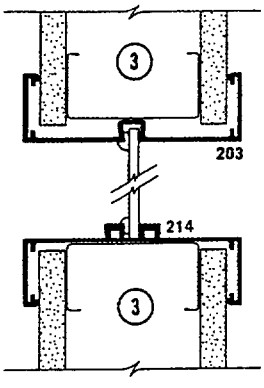
DRIVE IN TRIM



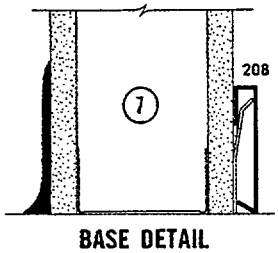
DOOR FRAME DETAIL



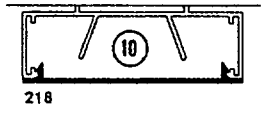
DOOR HEADER DETAIL



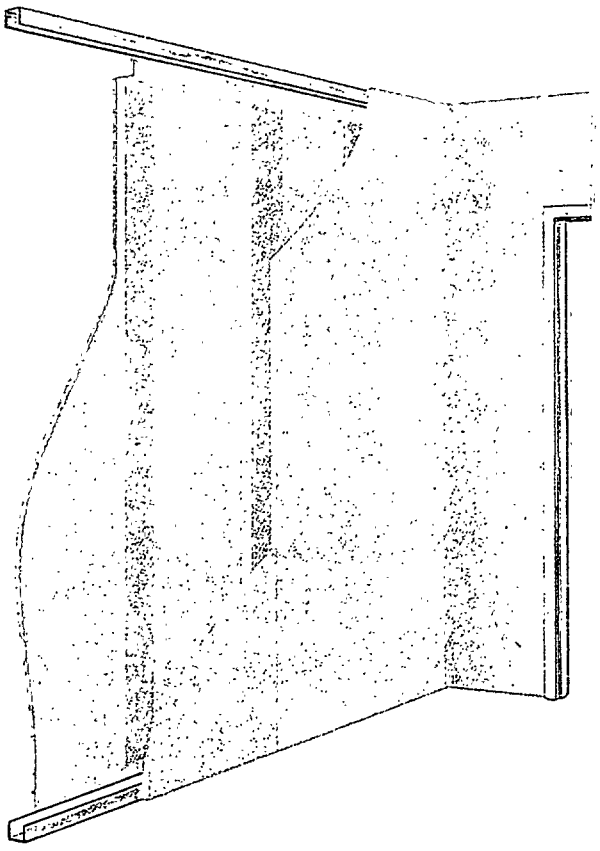
GLAZING DETAILS



BASE DETAIL

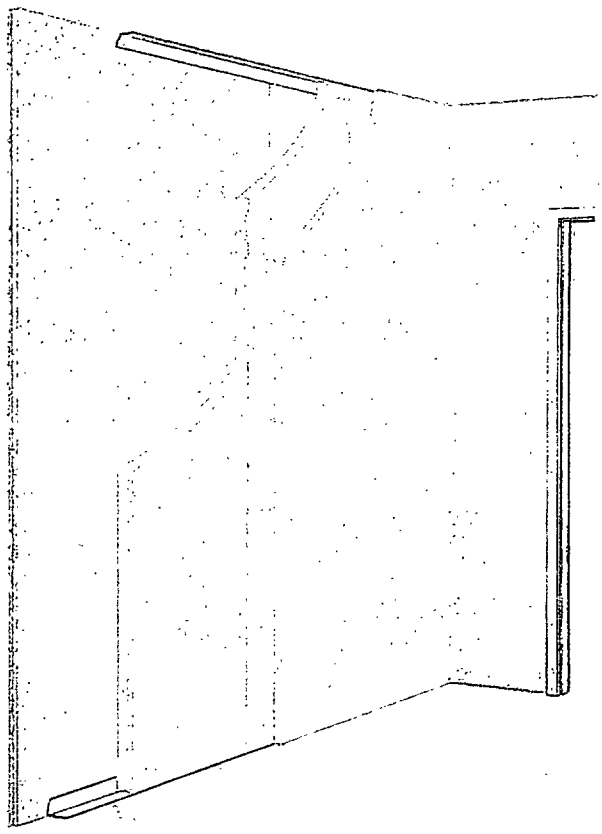


CASED OPENING DETAIL



semi-solid/non-bearing, noncombustible

Narrow partition, speedily and economically erected. Semi-solid construction permits easy installation of electrical wiring and reduces weight to approx. 6 lbs./sq. ft. 1 hr. fire resistance rating with STC of 35 to 39. Allowable heights: 10' for 2¼" partition (1" rib + ⅝" GWB each side) and 2⅝" partition (1⅝" rib + ½" GWB each side), 12' for 2⅞" partition (1⅝" rib + ⅝" GWB each side).



solid/non-bearing, noncombustible

Narrowest partition, speedily and economically erected. Solid partition (2" nominal) has a 2 hr. fire resistance rating and STC of 35 to 39. Approx. 8 lbs./sq. ft. for 2" partition (1" coreboard + ½" GWB each side) and 9 lbs./sq. ft. for 2¼" partition (1" coreboard + ⅝" GWB each side). Maximum allowable heights with maximum 12' between restraints is 12' for 2" partition, 14' for 2¼" partition.

specifications

All work shall be performed in strict accordance with plans and specifications. Partition application and procedures shall be in accordance with ANSI A97.1.

The three types of all-gypsum partitions shall be laminated constructions fastened to floor and ceiling by means of steel or wood runners. Wallboard face layers are laminated to either gypsum ribs (**semi-solid partition**) or to 1" gypsum coreboard (solid or **double solid partitions**). Partitions are considered noncombustible when erected with steel or fire retardant treated wood runners and combustible when erected with non-treated wood runners.

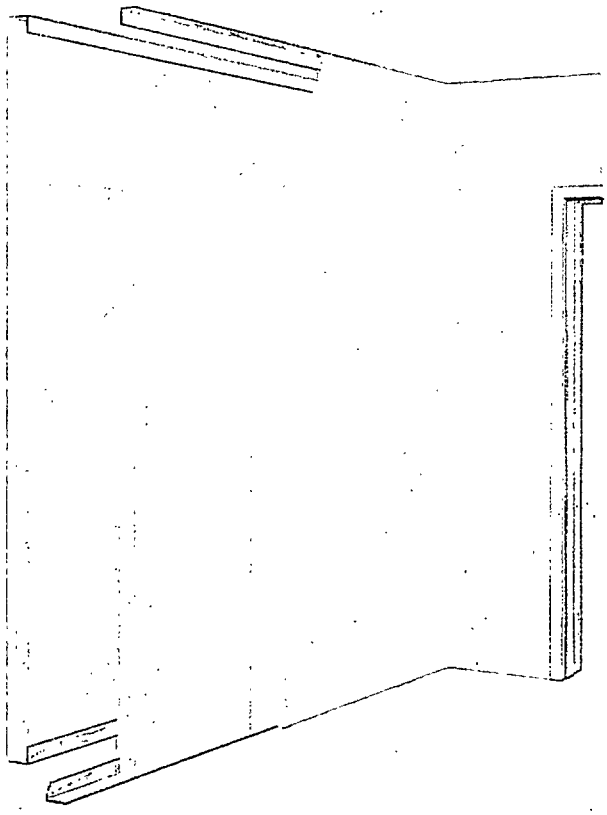
Runner Installation — Floor and ceiling runners shall be installed with suitable fasteners spaced 24" o.c. (maximum). Use "U" shaped steel runners (tracks) or wood runner with semi-solid partitions. Use "U" shaped steel runners (tracks), steel angle runner or wood runner for solid and double solid partitions. Note that a "U" shaped runner can **only** be used on the ceiling, **or** on the floor, but **not** for both locations.

PANEL ERECTION

Semi-Solid Partition — Erect partitions with gypsum ribs (1" or 1⅝" x 6" of solid gypsum core or laminated wallboard) spaced 24" o.c. Partitions may be erected with pre-assembled panels (rib laminated to centerline of each panel), or ribs and panels may be erected individually. Panels shall be vertically installed with joints staggered on opposite sides of partition. Laminate panels to ribs with sufficient adhesive to cover at least 75% of rib surface. If mastic type adhesive is used, apply serpentine bead of adhesive to ribs with crests ¾" from rib edges. Fasten panels to floor and ceiling track with 1" Type "S" screws 12" o.c. Supplement lamination to ribs with 1½" Type "G" screws driven 24" o.c. maximum along ribs.

Solid Partitions — Erect partitions with solid base layer of 1" x 24" wide coreboard (solid gypsum with tongue and groove edges or laminated with ship-lap edges) vertically positioned and fastened to ceiling angle runner and floor runner or track with two 1¼" Type "S" screws driven 4" from each panel edge. Laminate face layer panels vertically with recommended adhesives. Joints of face layer and coreboard shall be offset at least 6". Temporary bracing, or 1½" Type "G" screws may be used to maintain contact of face panels with coreboard until adhesive dries. Drive Type "G" screws a maximum of 36" o.c. along joints and vertical center lines. Fasten top and bottom of panel ends to floor and ceiling track with 1" Type "S" screws 12" o.c.

Double Solid Partitions — Erect partitions with parallel rows of floor and ceiling angle runner or track, spaced as required for inclusion of services and ducts, or for desired sound rating. Erect coreboard and laminate face layer panels as specified for solid partitions. Allowable ceiling height may be increased by 2 ft. if horizontal internal stiffeners are added. Stiffeners may be single or spliced screw-on studs fastened to each coreboard layer with 1¼" Type "S" screws 12" o.c.

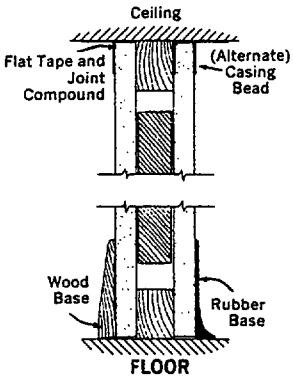


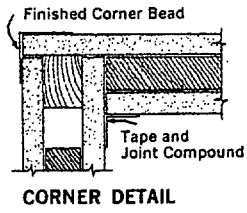
double solid/non-bearing, noncombustible

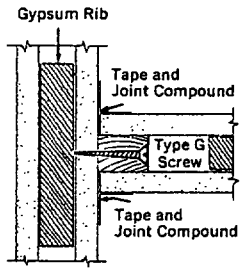
Provides expandable inner space for installation of service lines and ducts. Variation in double wall construction provides up to 3 hr. fire resistance rating and STC of 55 to 59. Partition weight is approximately 12½ lbs./sq. ft. Maximum allowable height with maximum 10′ between restraints is 10′ (12′ with horizontal internal bracing).

details

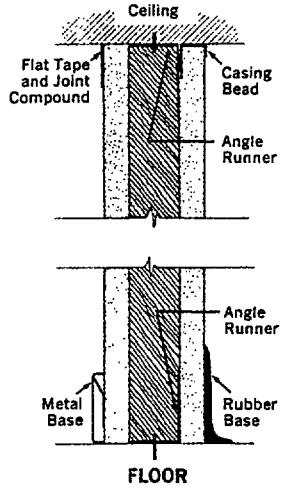
SEMI-SOLID

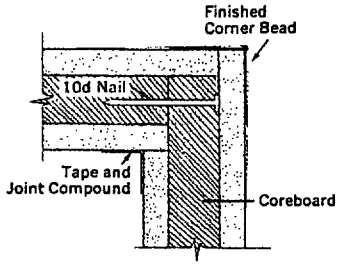


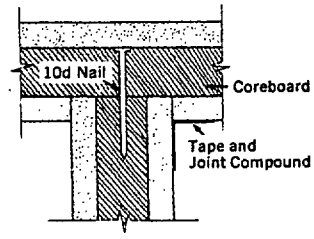




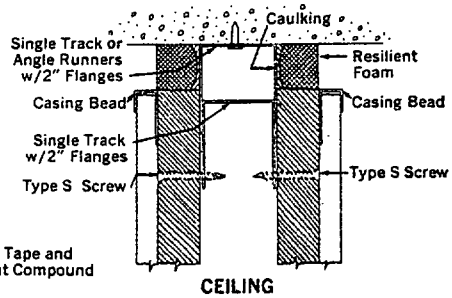
SOLID

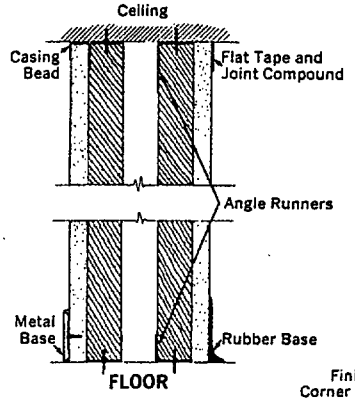


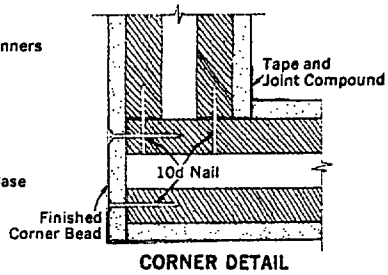




DOUBLE SOLID







ELECTRICAL SERVICE LINES

Semi-Solid Partitions — Install electrical conduit and boxes during panel installation. Provide for horizontal chases by cutting ribs short of floor or ceiling runners (maximum 6"). Vertical drops shall be made between ribs.

Solid Partitions — Cut electrical chases in coreboard layer just wide enough to install conduit. Where possible, make horizontal runs under or over partition. Do not disrupt continuity of coreboard base layer any more than necessary.

Double Solid Partitions — Install electrical runs and wire drops in chase provided between coreboard layers.

RELIEF JOINTS

Provision should be made at ceiling and intersecting walls when it is anticipated that partitions will be subjected to severe stresses from surrounding structural movement.

FINISHING

Finish all joints and screw heads with the tape-joint system, in accordance with standard recommended and proven methods. For more detailed specifications refer to ANSI A97.1 for the Application and Finishing of Gypsum Wallboard or FLINTKOTE literature.

technical data

Fire and sound ratings were developed in standard A.S.T.M. tests at nationally recognized laboratories.

Sound Transmission Class (STC) performance of an assembly is given in terms of a range as various tests have produced slight variations. The integrity of the assembly must be maintained by sealing all openings, sealing perimeters, and treating joints.

Local code authorities should be consulted for fire and sound resistance requirements.

key to abbreviations:

CK	Cedar Knolls Acoustical Laboratories
GH	Geiger and Hamme Acoustical Laboratories
NBS	National Bureau of Standards
ORC	Ohio Research Corporation
OSU	Ohio State University Building Research Laboratories
RAL	Riverbank Acoustical Laboratories
UL	Underwriters' Laboratories, Inc.
UC	University of California
INR	Impact Noise Resistance
STC	Sound Transmission Class
EST	Estimate

FIRE HAZARD Classification

FLINTKOTE Gypsum Wallboard and Super FIRE-HALT Gypsum Wallboard

Flame spread:	10-15
Fuel contributed:	5-15
Smoke developed:	0

NO.	FIRE RATING	LAB REFERENCE	CONSTRUCTION
■ [illegible] (concrete floor)			
1	1 hour	UL	2" concrete floor, ⅝" FLINTKOTE Super FIRE-HALT GWB nailed with annular threaded nail spaced 6" o.c. to ⅞" nailing channels at right angles spaced 16" o.c. attached to or suspended from steel bar joists.
2	1 hour	OSU	2" concrete floor, 25 gauge track fastened to opposing walls, or suspended. 25 gauge Screw-On Studs spaced 16" o.c., ⅝" FLINTKOTE Super FIRE-HALT GWB applied to studs (serving as joints) with screws spaced 9" o.c. at end joints and 12" o.c. in the field.
3	1½ hr.	UL	2" concrete floor, ½" FLINTKOTE Super FIRE-HALT GWB applied with screws 12" o.c. to furring channels at right angles 24" o.c. applied to or suspended from steel bar joists.
4	2 hour	UL	2½" concrete floor, ½" FLINTKOTE Super FIRE-HALT GWB applied with screws 12" o.c. to furring channels at right angles 24" o.c. applied to or suspended from steel bar joists.
5	2 hour	UL	2½" concrete floor, ⅝" FLINTKOTE Super FIRE-HALT GWB 2' x 2' Gypsum Drop-In Panels placed in fire-rated steel ceiling grid suspended from steel bar joists.

NO.	FIRE RATING	LAB REFERENCE	SOUND STC	SOUND INR	LAB REFERENCE	CEILING CONSTRUCTION
■ [illegible]						
1	1 hour	UL	35-39	−17	NBS	½" FLINTKOTE Super FIRE-HALT GWB applied with 5d nails 6" o.c.
2	1 hour	UL	40-44	−6	EST	Resilient Strips spaced 24" o.c. nailed at right angles to joist with 6d nails. ½" FLINTKOTE Super FIRE-HALT GWB fastened to Resilient Strips with screws 12" o.c.
			45-49	−4	CK	Mineral Fiber Insulation installed between joists.
			45-49	+2	CK	Wood floor surfaced with Cushioned Flooring.
			50-54	+15	CK	Wood floor surfaced with carpet and pad.
3	2 hour	UL	50-54	+2	EST	⅝" FLINTKOTE Super FIRE-HALT GWB applied at right angles to joist with 8d nails 7" o.c. Resilient Metal Strips spaced 24" o.c. applied over first layer of wallboard at right angle to joist and fastened to joists with 8d nails. A face layer of ⅝" FLINTKOTE Super FIRE-HALT GWB applied at right angles to strips and fastened with screws spaced 12" o.c.
			50-54	+6	EST	Wood floor surfaced with Cushioned Flooring.
			50-54	+20	EST	Wood floor surfaced with carpet and pad.

NO.	FIRE RATING	LAB REFERENCE	SOUND (STC) RANGE	LAB REFERENCE	WEIGHT LBS./SQ. FT.	PARTITION THICKNESS	CONSTRUCTION
■ [illegible]							
1	1 hour	UC	30-34	EST	6-8	2¼"	⅝" FLINTKOTE Super FIRE-HALT GWB laminated to each side of 1" x 6" gypsum studs spaced 24" o.c.
2	1 hour	OSU	50-54	ORC	9-10	4¾"	⅝" FLINTKOTE Super FIRE-HALT GWB laminated and screw attached to ½" FLINTKOTE Sound Deadening Board adhesively applied on both sides of 2½" x 3" gypsum studs spaced 24" o.c.
■ [illegible]							
1	2 hour	UC	35-39	EST	8-9	2"	1" FLINTKOTE Gypsum Coreboard fastened to top and bottom runners. ½" FLINTKOTE GWB adhesively applied to each side of Coreboard.
■ [illegible]							
1	2 hour	UC	45-49	RAL	11	4⅛"	Parallel rows of 1" FLINTKOTE Gypsum Coreboard spaced minimum of 1⅛" apart fastened to floor and ceiling runners. A face layer of ½" FLINTKOTE GWB adhesively applied to outer side of both Coreboards.
2	3 hour	UL	50-55	EST	10-11	5"	Parallel rows of floor and ceiling runners spaced ½" min. apart. Base layer of ⅝" Super FIRE-HALT GWB (or Backing Board) with 1" x 6" gypsum studs laminated at 24" o.c. fastened to outside of each runner. A face layer of ⅝" Super FIRE-HALT GWB adhesively and mechanically applied with 1½" Type G screws to base layer and to runner. Joints offset.

NO.	FIRE RATING	LAB REFERENCE	SOUND (STC) RANGE	LAB REFERENCE	WEIGHT LBS./SQ. FT.	PARTITION THICKNESS	CONSTRUCTION †
■ [illegible] (2" x 4" Wood Studs 16" o.c., Except Where Noted)							
1	45 min.	UL	30-34	NBS	5-6	4⅝"	½" FLINTKOTE Super FIRE-HALT GWB nailed to each side with 5d nails spaced 7" o.c.
2	1 hour	UL	35-39	NBS	7½	4⅞"	One layer ⅝" FLINTKOTE Super FIRE-HALT GWB applied to each side with 6d nails spaced 7" o.c.
3	1 hour	UC	40-44	RAL	7½	5⅜"	Resilient Strip applied horizontally 24" o.c. one side only. ⅝" FLINTKOTE Super FIRE-HALT GWB applied horizontally with 1" screws, 12" o.c. ⅝" FLINTKOTE Super FIRE-HALT GWB nailed to wood studs with 6d nails, spaced 8" o.c. on opposite side.
			45-49	RAL	7¾	5⅜"	With Economy Mineral Fiber Batt Insulation in stud space.
4	1 hour	OSU	45-49	GH	10	5⅞"	Base layer of ½" FLINTKOTE Sound Deadening Board applied vertically to each side with 5d nails, 24" o.c. at vertical edges and 16" o.c. at plate. Face layer of ⅝" Super FIRE-HALT GWB adhesively applied (strips only) to each side and nailed with 8d nails around perimeter of wallboard, and at mid-height on intermediate studs.
5	1 hour	OSU	35-39	NBS	8	5⅛"	Base layer of ⅜" FLINTKOTE Gypsum Backing Board applied vertically on each side with 4d nails 8" o.c. Face layer of ⅜" FLINTKOTE GWB applied on each side with 5d nails 8" o.c.
6	1½ hr.	NBS	35-39	NBS	11	5⅝"	Base layer of ½" FLINTKOTE GWB applied on each side with 5d nails 8" o.c. Face layer of ½" FLINTKOTE GWB applied on each side with 8d nails 8" o.c.
7	2 hour	OSU	45-49	CK	13	6⅛"	Base layer of ⅝" FLINTKOTE Super FIRE-HALT GWB applied on each side with 6d nails 6" o.c. Face layer of ⅝" FLINTKOTE Super FIRE-HALT GWB applied on each side with 8d nails 7" o.c.
■ EXTERIOR WALLS							
8	1 hour	NBS			10-11	5¾"	1" Wood Drop Siding over ½" FLINTKOTE FIRE-HALT Gypsum Sheathing nailed with 11 gauge, 1½" long roofing nails spaced 4" o.c. One layer ⅝" FLINTKOTE Super FIRE-HALT GWB applied with 6d nails 6" o.c. on inside surface. Mineral Fiber Siding or 1" minimum stucco cement plaster may be used in lieu of wood drop siding.
9	2 hour	UL			38-40	10⅛"	3¾" Brick Veneer with 1" air space over ½" FLINTKOTE FIRE-HALT Gypsum Sheathing nailed with 11 gauge 1½" long roofing nails 6" o.c. Two layers of ⅝" FLINTKOTE Super FIRE-HALT GWB applied to inside with 6d and 8d nails 8" o.c.
■ STEEL STUD PARTITION (Studs 24" o.c., Except Where Noted)							
1	1 hour	UC	35-39	RAL	5½	2⅞"	One layer of ⅝" FLINTKOTE Super FIRE-HALT GWB applied to each side of 1⅝" metal studs with 1" Type S screws spaced 9" on edge of wallboard and 12" in field.
2	1 hour	UC	45-49	RAL	5	3½"	One layer ½" FLINTKOTE Super FIRE-HALT GWB applied to each side of 2½" metal studs with 1" Type S screws spaced 9" o.c. on edge of wallboard and 12" o.c. in field and 2" Mineral Fiber Insulation in stud cavity.
3	1 hour	OSU	45-49	RAL	5	3½"	One layer ½" FLINTKOTE Super FIRE-HALT GWB applied to each side of 2½" metal studs with aluminum batten strips fastened with 1" Type S screws spaced 12" o.c. and 2" Mineral Fiber insulation installed in stud cavity.
4	1 hour	EST	45-49	EST	6	7"	Two rows of 1⅝" metal studs spaced 2¾" apart, cross braced with 12" wide gypsum wallboard strips and ⅝" FLINTKOTE Super FIRE-HALT GWB applied to each outer face with 1" Type S screws spaced 9" o.c. at edges and 12" o.c. in field.
			50-54	RAL	6½	7"	With 1" Mineral Fiber Insulation in stud cavity of one row of studs.
5	1 hour	UC	35-39	RAL	6	4⅞"	⅝" FLINTKOTE Super FIRE-HALT GWB fastened to each side of 3⅝" nailable studs with nails spaced 8" o.c.
6	1½ hr.	OSU	45-49	RAL	8	4½"	Two layers ⅝" FLINTKOTE Super FIRE-HALT GWB applied to one side 1⅝" metal studs with 1" Type S screws for base layer, and 1⅝" Type S screws for face layer spaced 12" o.c. One layer ⅝" FLINTKOTE Super FIRE-HALT GWB applied to other side with 1" Type S screws 9" o.c. on edge and 12" o.c. in field.
7	2 hour	EST	50-54	RAL	9	5⅝"	Base layer of ⅜" FLINTKOTE GWB (or Backing Board) applied to each side of 3⅝" metal studs with 1" Type S screws spaced 24" at the perimeter of the wallboard. A face layer of ⅝" FLINTKOTE Super FIRE-HALT GWB is applied with 1⅝" Type S screws spaced 9" o.c. on edges and 12" o.c. in field. Mineral Fiber Insulation in stud cavity.
8	2 hour	UC	45-49	EST	9	3⅝"	Base layer of ½" FLINTKOTE Super FIRE-HALT GWB (or Backing Board) applied to each side of 1⅝" metal studs with 1" Type S screws spaced 12" o.c. A face layer of ½" FLINTKOTE Super FIRE-HALT GWB applied to each side with 1⅝" Type S screws spaced 12" o.c.
			50-54	RAL	9½	3⅝"	With 2" Mineral Fiber Insulation in stud cavity.

†Joint treatment **NOT** required for fire rating.
Joint treatment **IS** required for sound rating.

FLINTKOTE®

gypsum wallboard products

. . . are manufactured to meet exacting demands of all involved in building construction

owner — quality partitions and ceilings for a lifetime of use . . . fire and sound resistant.

architect — a variety of systems providing fire and sound ratings to comply with Owner needs, and code requirements.

code authorities — fire tested gypsum products and systems approved by accredited laboratories and properly identified to facilitate inspection.

builder — competitive in cost, speed in construction, with a minimum of clean up time and interference with other crafts.

drywall contractor — FLINTKOTE gypsum core is not only specifically designed to increase fire resistance . . . it is resilient, adaptable to curved backing, may be fastened and handled with a minimum of damage . . . it scores evenly and breaks clean.

decorator — FLINTKOTE facing paper is designed to accept any type of decoration . . . texture, paint, wallpaper or vinyl decorator materials.

The specifications herein contain the best information we have relating to our products, and the recommended uses of our products are based on tests believed to be reliable.

warranty

FLINTKOTE warrants that the products described herein are of merchantable quality BUT DOES NOT WARRANT THEIR FITNESS FOR ANY PARTICULAR USE OR PURPOSE OR MAKE ANY OTHER WARRANTY, EXPRESS OR IMPLIED. This warranty may not be enlarged or extended by our sales representatives, written sales information or drawings.

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