



BXUV.U435 Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

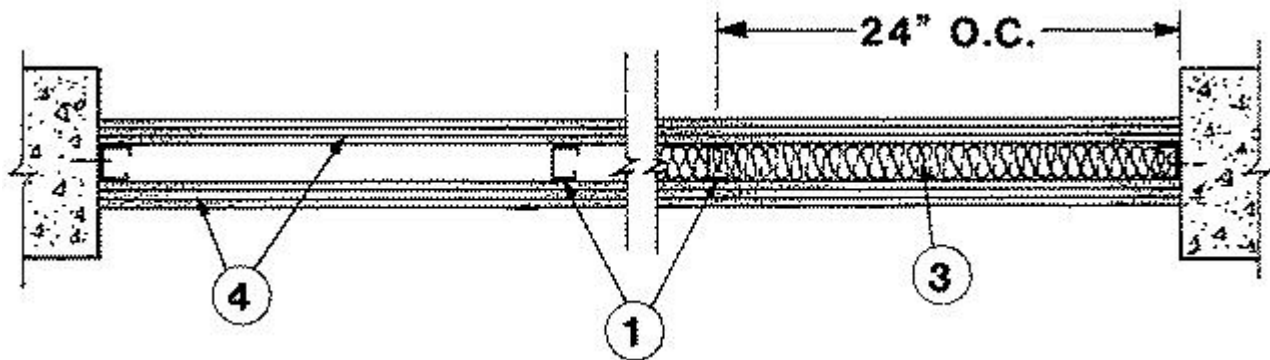
[See General Information for Fire Resistance Ratings - ANSI/UL 263](#)

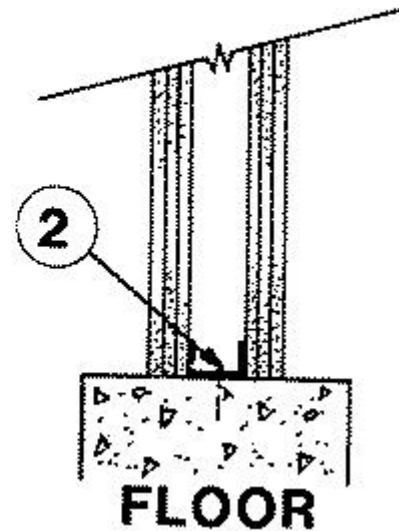
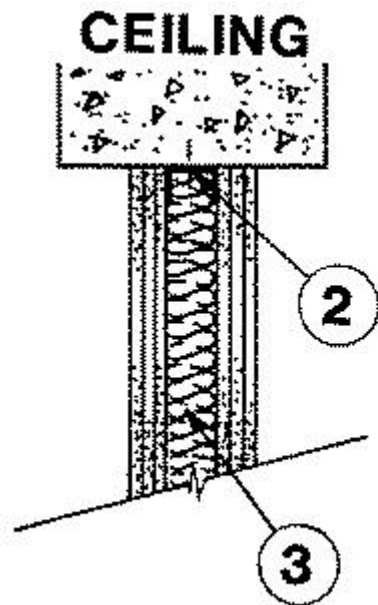
Design No. U435

March 23, 2009

Assembly Rating — 3 Hr or 4 Hr (See Item 4)

Nonbearing Wall





1. **Studs** — Channel-shaped, 1-5/8 in. wide by 1-1/4 in. deep, with 5/16 in. folded back return flange legs. Fabricated from No. 25 MSG galvanized steel. Stud spacing 16 or 24 in. OC. Studs to be cut 1 in. less than assembly height.

1A. **Framing Members* — Steel Studs** — As an alternate to Item 1 - Channel shaped studs, min. 1-5/8 in. wide, spaced a max of 16 or 24 in. OC. Studs to be cut 1 in. less than assembly height.

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

1B. **Framing Members - Floor and Ceiling Runner*** — Not shown - In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. deep by 1-5/8 in. wide fabricated from min 0.0200 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

MARINO\WARE A DIV OF WARE INDUSTRIES

INC — Viper20S™ Track, Viper20D™ Track

2. **Floor and Ceiling Runners** — Channel-shaped runners, 1-5/8 in. wide by 1-1/4 in. deep, fabricated from No. 25 MSG galvanized steel. Attached to floor and ceiling with fasteners spaced 24 in. OC max.

2A. **Framing Members* — Floor and Ceiling Runners** — As an alternate to Item 2 - Channel shaped, min. 1-5/8 in. wide, attached to floor and ceiling with fasteners 24 in. OC. max.

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

2B. **Framing Members - Metal Studs*** — Not shown - In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. deep by 1-5/8 in. wide fabricated from min 0.0200 in. thick galv steel. Attached to floor and ceiling with fasteners spaced 24 in. OC max.

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INC — Viper20S™, Viper20D™

3. **Batts and Blankets*** — (optional) — Mineral wool insulation, partially or completely filling stud cavity.

ROCK WOOL MANUFACTURING CO — Delta Board.

THERMAFIBER INC — Type SAFB.

3A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft³. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the

enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft³.

U S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

3B. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) and Item 3A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

4. Gypsum Board* — 1/2 in. thick, 4 ft wide with square or tapered edges. **For 4 Hr Rating** — Four layers of wallboard to be used. Inner layers to be applied vertically with joints centered over studs. Outer layer may be applied vertically or horizontally. First layer fastened to each stud with 1 in. long Type S, self-tapping steel screws. Second layer fastened to each stud through the first layer with 1-5/8 in. long, Type S, self-tapping steel screws. Third layer fastened to each stud through the first and second layers with 2-1/4 in. long, Type S, self-tapping steel screws. Fourth layer fastened to each stud through the first, second and third layers with 2-5/8 in. long, Type S, self-tapping steel screws. First layer screws shall be located 5 in. from top and bottom of wall with a maximum spacing of 48 in. O.C. vertically between top and bottom screws. Second and third layer screws shall be located 4 and 3 in., respectively, from the top and bottom of wall with the same vertical spacing as the first layer screws. Fourth layer screws shall be located 2 in. from top and bottom of wall and spaced 12 in. OC vertically. Each fourth layer horizontal board end shall be centered over and secured to the stud with screws spaced 1/2 in. from end joint and 12 in. OC vertically. Board end joints shall be staggered. At board side joints all screws shall be located 1/2 in. from the joints. Fourth layer also secured to the second and third layers with 1-1/2 in. long, Type G, self-tapping steel screws located midway between studs and 1 in. from the horizontal joint. Joints in each layer of wallboard to be staggered from the joints in the adjacent layer and on opposite sides of studs.

For 3 hr rating — Three layers of wallboard to be used. Inner layers to be applied vertically with joints centered over studs. Outer layer may be applied vertically or horizontally. First layer fastened to each stud with 1 in. long, Type S, self-tapping steel screws. Second layer fastened to each stud through the first layer with 1-5/8 in. long, Type S, self-tapping steel screws. Third layer fastened to each stud through the first and second layers with 2-1/4 in. long, Type S, self-tapping steel screws. First and second layer screws shall be located 4 and 3 in. from top and bottom of wall, respectively, with a maximum spacing of 48 in. OC vertically. The third layer screws shall be located 2 in. from top and bottom of wall with a maximum spacing of 12 in. OC vertically. Each third layer horizontal board end shall be centered over and secured to the stud with Type S, self-tapping steel screws spaced 1/2 in. from end joint and 12 in. OC vertically. Third layer, also secured to the first and the second layers with 1-1/2 in. long, Type G, Self-tapping steel screws located midway between studs and 1 in. from the horizontal joint. Board end joints shall be staggered. Vertical board joints to be staggered from the joints in the adjacent layer and on opposite sides of studs.

AMERICAN GYPSUM CO — Types AG-C.

CANADIAN GYPSUM COMPANY — Types C, IP-X2 IPC-AR.

CERTAINTED GYPSUM INC — Type FRPC, ProRoc Type C.

CERTAINTED GYPSUM CANADA INC — ProRoc Type C.

GEORGIA-PACIFIC GYPSUM L L C — Type 5.

LAFARGE NORTH AMERICA INC — Type LGFC-C, LGFC-C/A.

NATIONAL GYPSUM CO — Types FSK-C, FSW-G, FSW-C, FSMR-C.

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM — Type PG-C.

TEMPLE-INLAND FOREST PRODUCTS CORP — Type TG-C.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG MEXICO S A D E C V — Types C, IP-X2, IPC-AR.

For 3 hr rating — Two layers of 3/4 in. thick, 4 ft wide applied to each side of the steel studs. Inner layers to be applied vertically with joints centered over studs and staggered on opposite sides of studs. Outer layers to be applied horizontally with vertical butt joints staggered from inner layer joints or vertically with joints centered over studs and staggered on opposite sides of studs.

Inner layer secured with 1-1/4 in. long Type S self-drilling, self-tapping steel screws spaced 24 in. OC along the perimeter and in the field. Outer layer, when secured horizontally, secured with 2-1/4 in. long Type S self-drilling, self-tapping steel screws spaced 24 in. OC along the perimeter and in the field along the horizontal joints of the outer layer, 1-1/2 in. long Type G self-drilling, self-tapping steel screws to be applied midway between the studs (24 in. OC) and 1 in. from the longitudinal joint. Outer layer, when secured vertically, secured with 2-1/4 in. long Type S self-drilling, self-tapping steel screws spaced 24 in. OC along the perimeter and in the field.

CANADIAN GYPSUM COMPANY — Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

UNITED STATES GYPSUM CO — Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

USG MEXICO S A D E C V — Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

4A. Gypsum Board* — (As an alternate to Item 4) — 5/8 in. thick. For 4 hr rating — Four layers of wallboard installed as described in Item 4, with fourth layer screw length increased by 1/4 in. For 3 hr rating — Three layers of wallboard installed as described in Item 4.

LAFARGE NORTH AMERICA INC — Type LGFC-C/A

NATIONAL GYPSUM CO — Type FSMR-C.

4B. Gypsum Board* — (As an alternate to Item 4) — 5/8 in. thick. For 3 hr rating — Three layers of wallboard installed as described in Item 4.

LAFARGE NORTH AMERICA INC — Type LGFC6A

5. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads. Paper tape, 2 in. wide, embedded in first layer of compound over all joints.

*Bearing the UL Classification Mark

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[Page Top](#)

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