Fire Resistance Information

Fire Resistance Rating — ANSI/UL 263
Design No. K912
April 19, 2001

Restrained Assembly Ratings — 3 Hr.
Unrestrained Assembly Ratings — 2 Hr.
Unrestrained Beam Ratings — 2 Hr.

1. Steel Beam — Composite dissymmetric steel beam fabricated from structural steel members in accordance with the Specification for the Design, Fabrication and Erection of Structural Steel for Buildings, published by the American Institute of Steel Construction. The steel beam, with an open web, has a 34.7 lb./ft. min. weight. The beam consists of the bottom flange and partial web of a min. W10(x)49 with a bar welded to the web that serves as the top flange. Top bar min. dimensions of 1"x3", a min. overall beam depth of 8" and a min. average cross-section are of 10.2 in^2.

2. Concrete Topping — (Optional for unrestrained rating) — 3,000 PSI compressive strength, 150 (+ or -) 3 PCF unit weight. Normal weight concrete. Min. 1-1/8" thickness required for 3 hr. Restrained Assembly Rating.

3. Precast Concrete Units* — Carbonate, siliceous or lightweight aggregate. Min. 8" thick by 4' or 8' wide units with cross section similar to that shown for Design No. J952. Openings may be provided through the units for piping, ducts or similar services and should be suitably enclosed with constructions having at least equal resistance, acceptable to authorities having jurisdiction. Units have a min. 1-1/2" bearing on the bottom flange of Item 1.

4. Grout — Sand-cement grout (3,500 PSI min. compressive strength). Min. average thickness of 9/16" above top bar. Hollow cores in precast concrete units grouted 6" min. from beam web.

5. Runner Channel — Fabricated from 25 MSG galv. steel, min. 1/2" deep, with 1" legs, fastened to steel beam with XZF powder actuated pins spaced 12" OC.

6. Gypsum Board* — 1/2" or 5/8" thick gypsum board fastened to runner channels with 1" long, 0.150" diameter steel screws spaced 16" OC.

7. Corner Bead — Fabricated from min. 28 MSG galv. steel to form an angle with 1-1/4" legs. Legs perforated with 1/4" diameter holes approximately 1" OC. Attached to runner channel through gypsum board with 1" long, 0.150" diameter steel screws spaced 16" OC.

8. Joint Compound — (Not shown) 1/32" thick on bottom and sides of wallboard from corner beads and feathered out. Paper tape embedded in joint compound over joints with edges of compound feathered out.

9. Spray-Applied Fire Resistive Material*— As an alternate to Item 5 through 8, the bottom flange of the steel beam may be protected with a spray applied fire resistive material. Applied in one coat to a final untamped thickness of 3/8" to steel surfaces which are free of dirt, oil or scale. Min. average untamped density of 13 PCF with min. ind. untamped density of 11 PCF for Types II and D-C/F. Min. average and min. ind. untamped densities of 22 and 19 PCF, respectively, for Type HP. for Type I, min. average density of 15 PCF with min. ind. value of 12 PCF.
ISOLATEK INTERNATIONAL — Type D-C/F, HP, I or II, Type EBS or Type X Adhesive/Sealer optional.
*Bearing the UL Classification Mark.

Summarized from UL #K912. Please refer to the current online Certifications Directory.

For Applications in Canada, see ULC J500.

Check current UL Directory for modifications or updates.