



System No. HW-D-0258

June 02, 2016

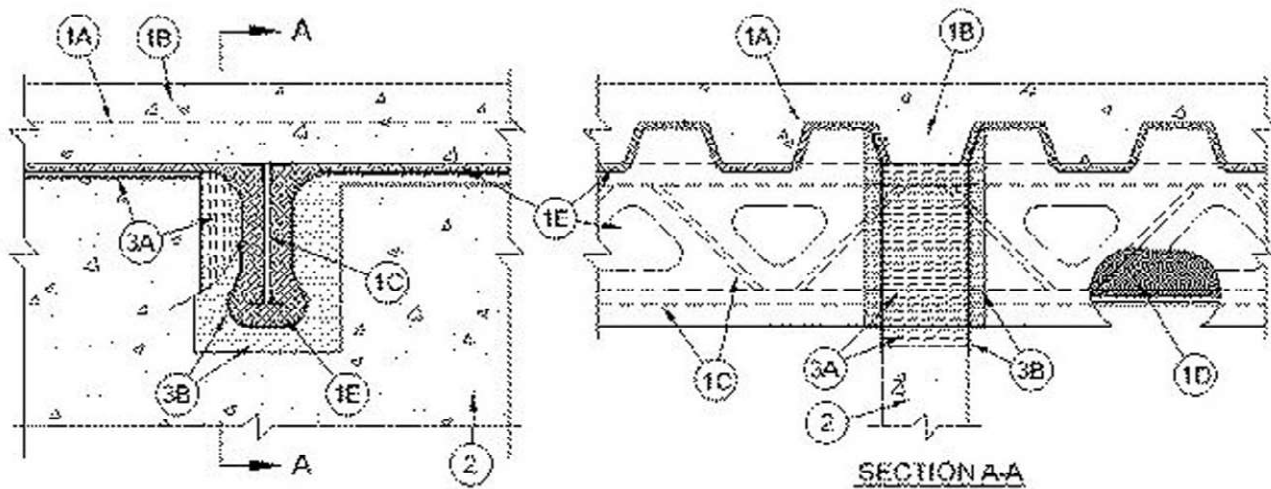
Assembly Rating - 2 Hr

Nominal Joint Width - 1 In.

L Rating At Ambient – Less Than 1 CFM/Lin Ft

L Rating At 400°F – Less Than 1 CFM/Lin Ft

Class II Movement Capabilities - 25% Compression and Extension



1. Floor Assembly – The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:

- A. Steel Floor and Form Units*** – Max 3 in. (76 mm) deep galv steel fluted floor units.
- B. Concrete** – Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
- C. Structural Steel Support** – (Optional) – **Steel beam or open-web steel joist, as specified in the individual D700 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly.** Steel beam or open-web steel joist, as specified in the individual D700 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly.
- D. Steel Lath** – Where open-web steel joists passes through the fire rated wall, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m²) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with no min thickness requirement.
- E. Spray-Applied Fire Resistive Material*** – Steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design. Material is to be excluded from the steel floor units, directly above the concrete wall assembly.

GCP APPLIED TECHNOLOGIES INC – Type MK-6/HY

ISOLATEK INTERNATIONAL – Type 300

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2. Wall Assembly* – Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100 - 150 pcf or 1600-2400 kg/m³) structural concrete. Wall may also be constructed from any UL Classified **Concrete Blocks***. Wall shall be installed parallel to and centered under the valleys of the flutes of the steel floor units. Notch or blockout made in top of wall shall be sized to provide a min 1 in. (25 mm) to max 4 in. (102 mm) clearance on the two sides of the protected structural steel support (Item 1C) and a max 2 in. (51 mm) clearance on the bottom of the protected structural steel member.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. Joint System – Max separation between bottom of floor units and top of concrete wall at time of installation is 1 in. (25 mm). Max separation between spray-applied fire resistive material on bottom of structural support and the notch or blockout in top of wall is 2 in. (51 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the concrete wall and the bottom of the floor, as follows

A. Forming Material* – Nom 4 pcf (64 kg/m³) mineral wool batt insulation cut to a length equal to the overall thickness of wall and inserted edge-first into the spaces between the spray applied fire resistive material on the structural steel member and the notched opening at the top of the wall. The thickness of forming material shall be sufficient to attain a min compression of 50 percent between the sides of the notched opening and the protected structural steel member and a min compression of 50 percent between the bottom of the notched opening and the bottom of the protected structural steel member. Additional sections of mineral wool batt insulation are compressed 50 percent in thickness and are installed cut edge first to completely fill the gap above the top of the wall. The forming material shall be installed flush with both surfaces of wall.

THERMAFIBER INC – Type SAF.

B. Fill, Void or Cavity Material*— Sealant – A min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material sprayed or troweled on each side of wall to completely cover mineral wool forming material and to overlap min 1/2 in. (13 mm) onto concrete wall and to overlap min 2 in. (51 mm) onto spray-applied fire resistive material.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC – CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.