

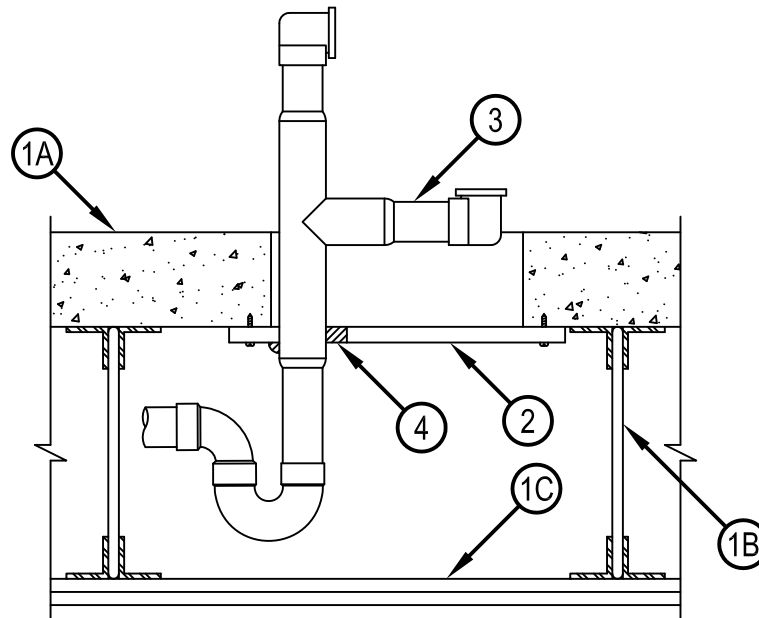


Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-E-2028

F Rating - 1 Hr
T Rating - 1/2 Hr

FE 2028



1. Floor-Ceiling Assembly — The 1 hr fire rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:
 - A. Concrete Floor — Normal weight or lightweight (100-150 pcf or 1600-2400 kg/m³) concrete formed on removable flat forms or on corrugated steel deck as specified in the individual G500 Series Design. Max area of floor opening is 96 in.² (0.06 m²) with max dimension of 12 in. (305 mm).
 - B. Joists — Steel joists or Structural Steel Members* as specified in the individual G500 Series Design
 - C. Gypsum Board* — Min 5/8 in. (16 mm) thick, screw-attached to furring channels as specified in the individual G500 Series Design.
2. Floor Patch — Min 5/8 in. (16 mm) thick patch cut from water resistant Gypsum Board* or Cementitious Backer Unit* secured to underside of floor beneath floor opening. Patch sized to lap min 2 in. (51 mm) beyond each side of floor opening. Patch split into two pieces at opening made to accommodate bathtub drain fitting (Item 3). Diam of hole-sawed opening in patch to be 1 in. (25 mm) larger than outside diam of bathtub drain fitting. Two pieces of patch positioned around drain fitting with cut edges tightly-butted and such that the annular space between the drain fitting and the patch is min 0 in. (0 mm, point contact) to max 1 in. (25 mm). Patch secured to underside of floor with min 3/16 in. (4.8 mm) diam by 1-3/4 in. (44 mm) long steel masonry anchors in conjunction with min 1 in. (25 mm) diam steel fender washers. Fasteners to be located at each corner of patch, on each side of split made to accommodate drain fitting and max 6 in. (152 mm) on center around perimeter of floor opening.
3. Drain Piping — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid or cellular core acrylonitrile butadiene styrene (ABS) or polyvinyl chloride (PVC) pipe and drain fittings cemented together and provided with ABS or PVC bathtub waste/overflow fittings.
4. Fill Void or Cavity Materials* — Min 5/8 in. (16 mm) depth of fill material applied within the annulus, flush with both surfaces of gypsum board or cementitious backer unit patch. When floor is formed with corrugated steel deck, each corrugation above patch is to be filled with a min 5/8 in. (16 mm) depth of fill material along the side edges of the patch.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE-MAX Intumescent Sealant

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



Hilti Firestop Systems

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January 21, 2015