



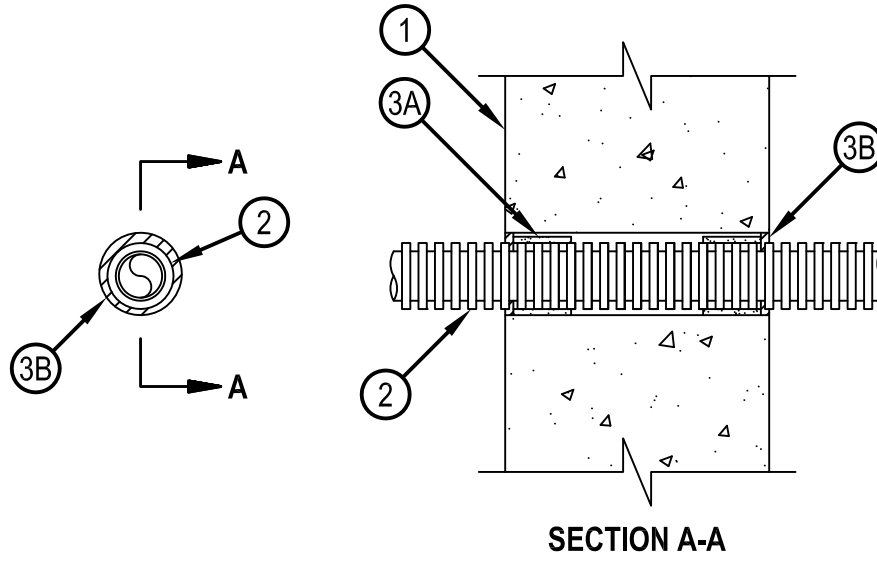
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. W-J-2191

F Ratings — 3 and 4 Hr (See Item 1)

T Ratings — 3 and 4 Hr (See Item 1)

WJ 2191



1. Wall Assembly — Min 6-1/2 in. (165 mm) and 7-1/2 (191 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete for 3 and 4 hr fire rated wall assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 3 in. (76 mm).

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

The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrant — Nom 2 in. (51 mm) diam (or smaller) Electrical Nonmetallic Tubing+ formed from polyvinyl chloride (PVC) and installed in accordance with Article 331 of the National Electrical Code (NFPA No. 70). One tubing to be installed either concentrically or eccentrically within the firestop system. The annular space within the firestop system shall be min 3/16 in. (5 mm) to a max 7/16 in. (11 mm). Tubing to be rigidly supported on both sides of wall.

See Electrical Nonmetallic Tubing (FKHU) category in the Electrical Construction Materials Directory for names of manufacturers.

3. Firestop System — The firestop system shall consist of the following:

A. Fill, Void or Cavity Material* - Wrap Strip — Single layer of nom 3/16 in. (5 mm) thick by 1-3/4 in. (45 mm) wide intumescent wrap strip wrapped around through penetrant with butted end seam and secured with aluminum foil tape. Wrap strip recessed from each surface of wall to accommodate the required thickness of fill material. Wrap strip shall be installed on both sides of wall.

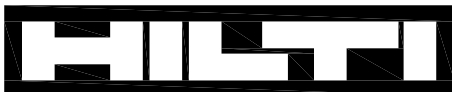
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648E Firestop Wrap Strip

B. Fill, Void or Cavity Material* - Sealant — Min 1/4 in. (6 mm) thickness of fill material applied within annulus, flush with each surface of wall.

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.

+ Bearing the UL Listing Mark



Hilti Firestop Systems

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