

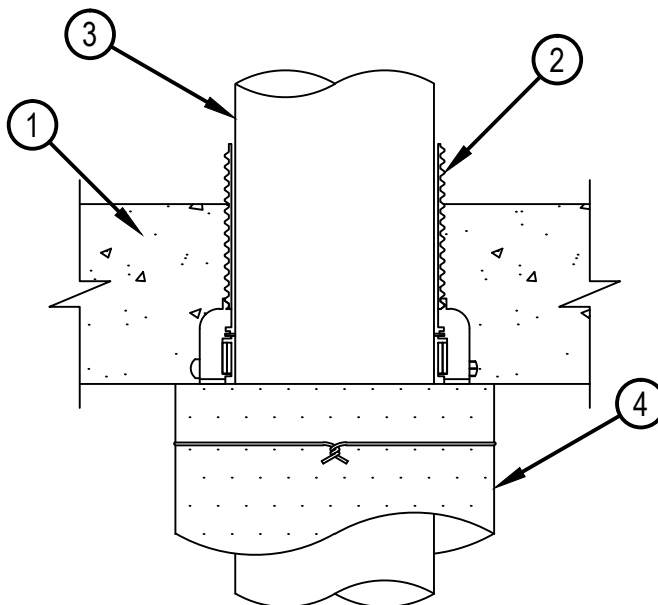


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. F-B-1010

FB 1010

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 2 Hr	FT Rating — 2 Hr
	FH Rating — 2 Hr
	FTH Rating — 2 Hr



1. Floor Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf) concrete.
2. Firestop Device* — Cast in place firestop device permanently embedded during concrete placement in accordance with accompanying installation instructions.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680N-75/2.5", CP 680N-110/4", CP 680N-160/6", CP 682-75/2.5", CP 682-110/4", CP 680-M 2", CP 680-M 3", CP 680-M 4", CP 680-M 6", CP 680-P 2", CP 680-P 3", CP 680-P 4", CP 680-P 6", CP 680-PX 2", CP 680-PX 3"
3. Through Penetrants — One metallic pipe, conduit or tubing to be installed concentrically within the firestop device. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe, conduit or tubing may be used:
 - A. Steel Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit — Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
 - D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.

The firestop device and metallic penetrant shall be sized as follows:

Nom Pipe Diameter+	Firestop Device
1-1/2 to 2 in. (38 to 51 mm)	CP 680N-75/2.5", CP 682-75/2.5" CP 680-M 2", CP 680-P 2", CP 680-PX 2"
3 in. (76 mm)	CP 680-M 3", CP 680-P 3", CP 680-PX 3"
3 to 4 in. (76 to 102 mm)	CP 680N-110/4", CP 682-110/4" CP 680-M 4", CP 680-P 4"
4 to 6 in. (102 to 152 mm)	CP 680N-160/6" CP 680-M 6", CP 680-P 6"



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4. Pipe Covering Materials* — Nom 2 in. (51 mm) thick unfaced mineral fiber pipe insulation (min 7.0 pcf or 112 kg/m³) sized to the outside diam of pipe or tube. Pipe insulation shall extend 30 in. (762 mm) along length of pipe, flush with lower surface of floor. Pipe insulation secured with nom 16 AWG steel wire spaced max 6 in. (152 mm) OC.
See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
5. Sheathing Material* — (Not shown) - Used in conjunction with Item 4. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
See Sheathing Materials (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
6. Fill, Void or Cavity Material* - Putty (Not Shown) — When outside diam of penetrant is smaller than inside diam of device, a min 1 in. (25 mm) thickness of fill material shall be applied within annulus flush with top surface of device.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick
- 6A. Packing Material (Not Shown) — As an alternate to Item 6, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool insulation firmly packed to the fullest extent possible within annulus flush with top surface of device.

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



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