

**PLASTIC PIPE THROUGH CONCRETE FLOOR/CONCRETE OVER METAL DECKING**

F-RATING = 1-HR., 2-HR., OR 3-HR.

FH-RATING = 0-HR. OR 3-HR.

FT-RATING = 0-HR., 1/4-HR., 3/4-HR., OR 2-HR.

FTH-RATING = 0-HR. OR 2-HR.

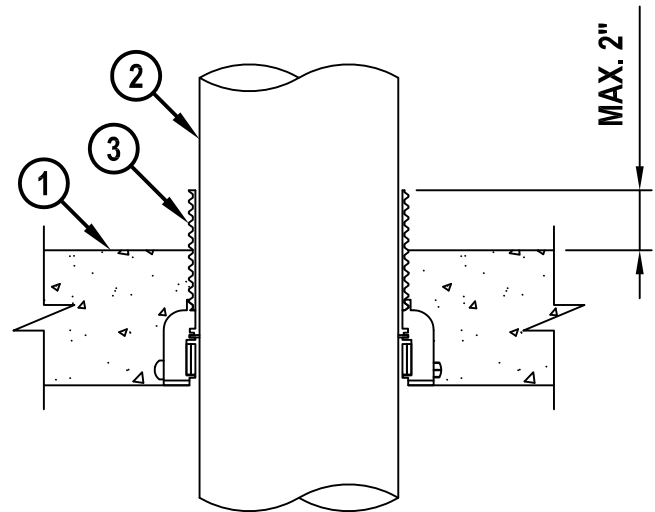
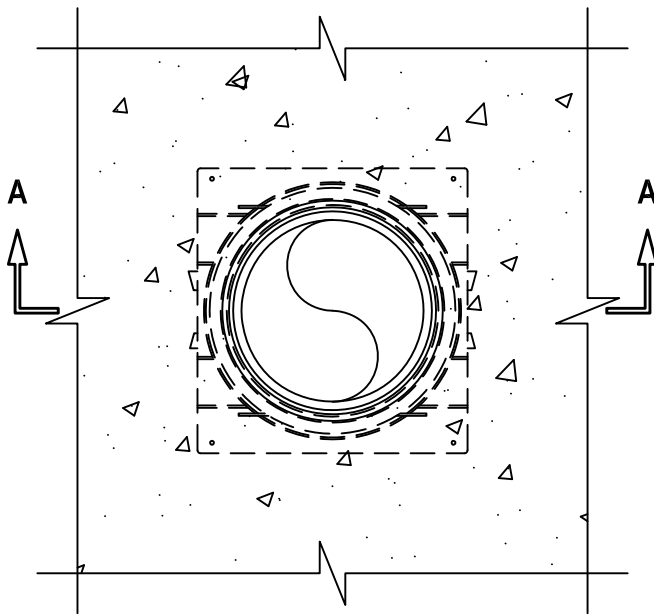
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ FT

L-RATING AT 400° F = LESS THAN 1 CFM/SQ FT

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

**TOP VIEW**

**SECTION A-A**



cUL FA2012m.07Z115

1. CONCRETE FLOOR ASSEMBLY (1-HR., 2-HR. OR 3-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2", 4-1/2", OR 6" THICK).
  - B. STEEL FLOOR UNIT/FLOOR ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2", 4-1/2", OR 6" THICK) OVER METAL DECKING.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE TABLE BELOW):
  - A. MAXIMUM 6" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR AND SOLID CORE).
  - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR AND SOLID CORE) (SEE NOTE NO. 3 BELOW).
  - C. MAXIMUM 6" NOMINAL DIAMETER FRPP PLASTIC PIPE (SEE NOTE NO. 3 BELOW).
  - D. MAXIMUM 6" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 11, SDR 13.5, OR SDR 17).
  - E. MAXIMUM 6" NOMINAL DIAMETER AQUARISE CPVC PLASTIC PIPE (SDR 11) MANUFACTURED BY IPEX, INC. (CLOSED PIPING SYSTEM ONLY).
  - F. MAXIMUM 4" NOMINAL DIAMETER RIGID NONMETALLIC CONDUIT (SCH 40 PVC).
  - G. MAXIMUM 6" NOMINAL DIAMETER SYSTEM 15 PVC PLASTIC PIPE (CELLULAR OR SOLID CORE) MANUFACTURED BY IPEX, INC.
3. HILTI CP 680-P OR CP 680-PX CAST-IN FIRESTOP DEVICE, CAST OR GROUTED INTO CONCRETE FLOOR (SEE TABLE BELOW).



HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	5/32" = 1"
Date	July 21, 2015

Drawing No.  
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**PLASTIC PIPE THROUGH CONCRETE FLOOR/CONCRETE OVER METAL DECKING**

F-RATING = 1-HR., 2-HR., OR 3-HR.

FH-RATING = 0-HR. OR 3-HR.

FT-RATING = 0-HR., 1/4-HR., 3/4-HR., OR 2-HR.

FTH-RATING = 0-HR. OR 2-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ FT

L-RATING AT 400° F = LESS THAN 1 CFM/SQ FT

NOTE : TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL

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MINIMUM CONCRETE THICKNESS	NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	RATINGS, HR.			
			F	FH	FT	FTH
2-1/2"	2" (PVC OR CPVC ONLY)	CP 680-P 2" OR CP 680-PX 2"	2	0	3/4	0
2-1/2"	3" (PVC OR CPVC ONLY)	CP 680-P 3" OR CP 680-PX 3"	2	0	0	0
2-1/2"	4" (PVC OR CPVC ONLY)	CP 680-P 4"	2	0	0	0
2-1/2"	6" (PVC OR CPVC ONLY)	CP 680-P 6"	2	0	0	0
4-1/2"	1-1/2"	CP 680-P 2" OR CP 680-PX 2"	2	0	2	0
4-1/2"	2"	CP 680-P 2" OR CP 680-PX 2"	2	0	2	0
4-1/2"	3"	CP 680-P 3" OR CP 680-PX 3"	3	0	0	0
6"	3" (PVC OR CPVC ONLY)	CP 680-P 3" OR CP 680-PX 3"	2	2	2	2
4-1/2"	3"	CP 680-P 4"	3	3	2	2
4-1/2"	4"	CP 680-P 4"	3	3	2	2
4-1/2"	4"	CP 680-P 6"	1	0	0	0
4-1/2"	6"	CP 680-P 6"	2	0	0	0

- NOTES :**
1. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS, FRPP = SCH 40; CPVC = SDR 11, 13.5, OR 17).
  2. FOR CONCRETE FLOOR OVER METAL DECKING APPLICATIONS, A METAL DECK ADAPTER KIT IS REQUIRED.
  3. ABS AND FRPP PLASTIC PIPE MAY ONLY BE INSTALLED IN MINIMUM 4-1/2" THICK CONCRETE FLOORS. FT AND FTH RATINGS ARE 0-HR. WHEN ABS AND FRPP PIPES ARE USED.
  4. L-RATING APPLIES ONLY WHEN DIAMETER OF PIPE EQUALS SIZE OF DEVICE (3" PIPE IN 3" DEVICE, ETC.).
  5. [OPTIONAL] TO OBTAIN 2-HR. FT RATING ON ABS OR PVC PLASTIC PIPES (3" AND SMALLER) WHERE FT RATING IS LISTED AS LESS THAN 2-HRS. IN TABLE ABOVE A 1/2" THICK PIECE OF GLASS-FIBER PIPE INSULATION MAY BE SECURED TO PIPE AT THE TOP OF THE FLOOR EXTENDING MINIMUM 12" ABOVE THE FLOOR SURFACE. PIPE INSULATION SECURED WITH METAL FASTENERS OR BUTT TAPE. WHEN (NOMINAL) PIPE DIAMETER IS LESS THAN DEVICE SIZE MINIMUM 1-1/4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) SHALL BE TIGHTLY PACKED INTO HILTI CP 680-P FLUSH WITH TOP SURFACE OF DEVICE.



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Scale	-
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