

UL SYSTEM NO. C-AJ-2488

**PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F-RATING = 2-HR.

T-RATING = 0-HR.

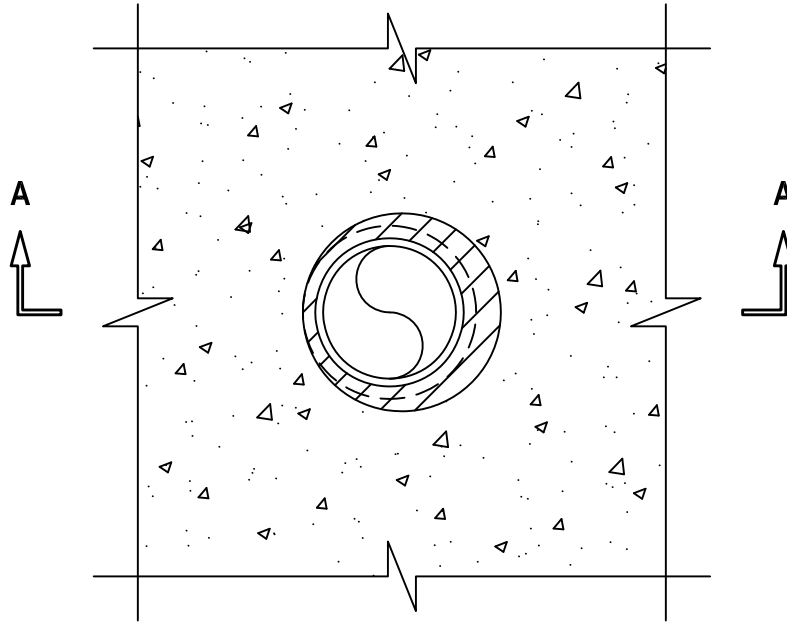
W-RATING = CLASS I (SEE NOTE NO. 3 BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 3 BELOW)

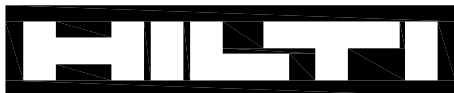
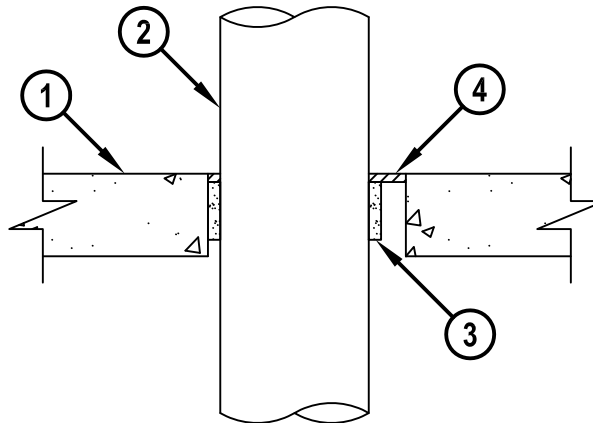
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 3 BELOW)

CAJ2488f.011515

**TOP VIEW**



**SECTION A-A**



**Hilti Firestop Systems**

HILTI, Inc.  
Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 2
Scale	11/64" = 1"
Date	Jan. 15, 2015

Drawing No.

**CAJ  
2488f**

*Saving Lives through Innovation and Education*

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1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
  - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
  - C. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (SEE NOTE NO. 2 BELOW) :
  - A. MAXIMUM 4" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - B. MAXIMUM 4" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - C. MAXIMUM 4" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
3. HILTI CP 648S WRAP STRIP WRAPPED CONTINUOUSLY AROUND CIRCUMFERENCE OF PIPE, AND HELD IN PLACE WITH INTEGRATED FASTENING TAPE. WRAP STRIP TO BE RECESSED MAXIMUM 1/2" FROM BOTTOM SURFACE OF FLOOR OR 1/4" FROM BOTH SIDES OF A WALL (SEE TABLE BELOW).
4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT.

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE	
			MINIMUM	MAXIMUM
1-1/2"	CP 648S - 1.5" US	3"	3/16"	3/4"
2"	CP 648S - 2" US	3-1/2"	3/16"	15/16"
3"	CP 648S - 3" US	4"	3/16"	5/16"
4"	CP 648S - 4" US	6"	3/8"	1-1/8"

**NOTES :** 1. HILTI CP 648S FIRESTOP WRAP STRIPS AND FIRESTOP SEALANT ARE REQUIRED ON EACH SIDE OF A WALL ASSEMBLY.  
 2. CLOSED OR VENTED PIPING SYSTEM (PVC, ABS = SCHEDULE 40; CPVC = SDR 13.5).  
 3. W-RATING AND/OR L-RATINGS APPLIES ONLY WHEN HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.



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