

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 3-HR.

T-RATING = 0-HR.

W-RATING = CLASS I (SEE NOTE NO. 2 BELOW)

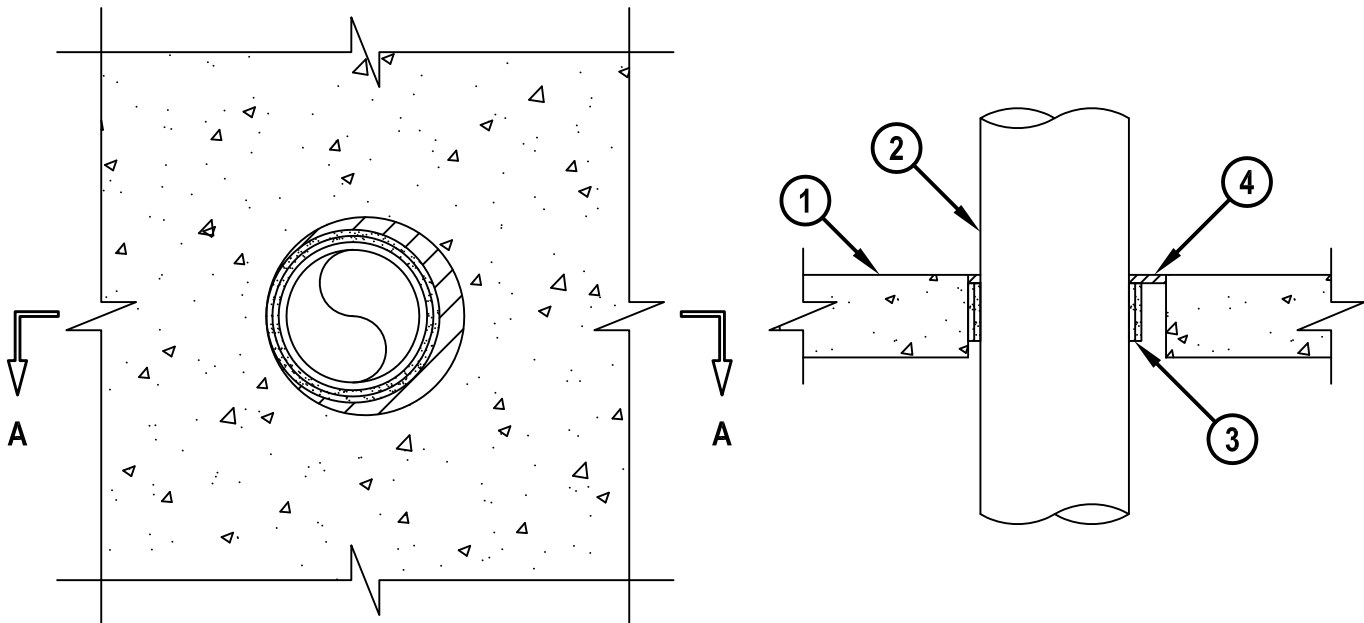
L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 2 BELOW)

L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT (SEE NOTE NO. 2 BELOW)

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BOTTOM VIEW

SECTION A-A



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



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

Sheet	1 of 2
Scale	11/64" = 1"
Date	May 29, 2018

Drawing No.
**CAJ
2342n**

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HILTI CP 648E WRAP STRIP					
NOMINAL PIPE DIAMETER	FIRESTOP PRODUCT	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE		NO. OF LAYERS OF CP 648E
			MINIMUM	MAXIMUM	
1-1/2"	CP 648E W25/1" OR CP 648E W45/1-3/4"	3"	3/16"	15/16"	1
2"	CP 648E W25/1" OR CP 648E W45/1-3/4"	3-1/2"	3/16"	15/16"	1
3"	CP 648E W45/1-3/4"	4"	3/16"	5/16"	1
3"	CP 648E W45/1-3/4"	5"	3/8"	1-1/16"	2
4"	CP 648E W45/1-3/4"	6"	3/8"	1-1/8"	2

HILTI CP 648S WRAP STRIP				
NOMINAL PIPE DIAMETER	FIRESTOP PRODUCT	MAXIMUM DIAMETER OF OPENING	ANNULAR SPACE	
			MINIMUM	MAXIMUM
1-1/2"	CP 648S/1.5" US	3"	3/16"	15/16"
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 :**
- HILTI CP 648E/CP 648S WRAP STRIP(S) AND HILTI FIRESTOP SEALANT ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.
 - W-RATING AND/OR L-RATING APPLIES ONLY WHEN HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.
 - WHEN HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED, TIGHTLY PACK MINIMUM 1/2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) INTO ANNULAR SPACE AND RECESS FROM TOP SIDE OF FLOOR TO ACCOMMODATE SEALANT.
 - CLOSED OR VENTED PIPING SYSTEM (PVC, ABS, FRPP = SCHEDULE 40; CPVC = SDR 13.5).



Hilti Firestop Systems

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Sheet	2 of 2
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