

INSULATED METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

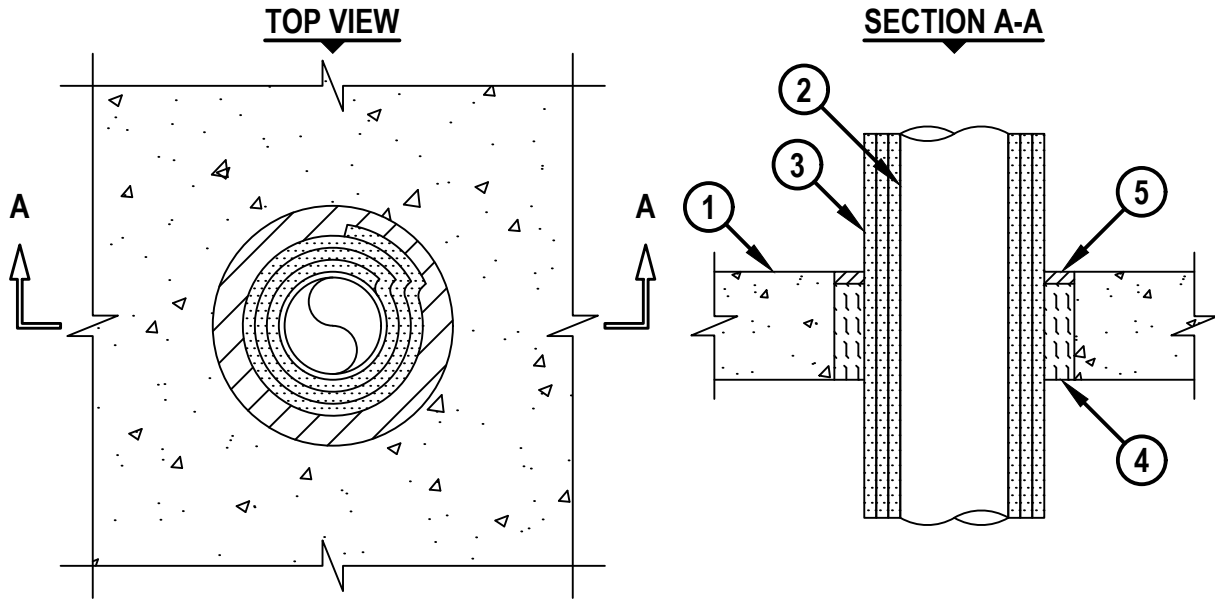
F-RATING = 2-HR.

T-RATING = 2-HR.

L-RATING AT AMBIENT = LESS THAN 4 CFM / SQ FT

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

CAJ5450a.092321



1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
 - B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - C. ANY UL/cUL CLASSIFIED PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
 - D. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER CAST OR DUCTILE PIPE.
3. MINIMUM THREE LAYERS OF NOMINAL 1/2" THICKNESS HILTI CFP-ES ENDO-SHIELD TO BE CONTINUOUSLY WRAPPED AROUND PENETRANT WITH A MINIMUM 2" OVERLAP AT THE FINAL LAYER. ALL SEAMS TO BE SEALED WITH FSK OR FOIL TAPE. WRAP LAYERS SECURED IN PLACE WITH 18 GA. STEEL TIE WIRE SPACED MAXIMUM 6" O/C ON OUTER MOST LAYER.
4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE SEALANT.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT FLUSH WITH TOP OF FLOOR ASSEMBLY.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 10" FOR NORMAL CONCRETE, 7" FOR PRECAST (HOLLOW-CORE) CONCRETE.
 2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 1-1/4".
 3. MINIMUM 1/2" DEPTH HILTI FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.



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

Sheet	1 of 1
Scale	1/8" = 1"
Date	Sep. 23, 2021

Drawing No.
CAJ
5450a