

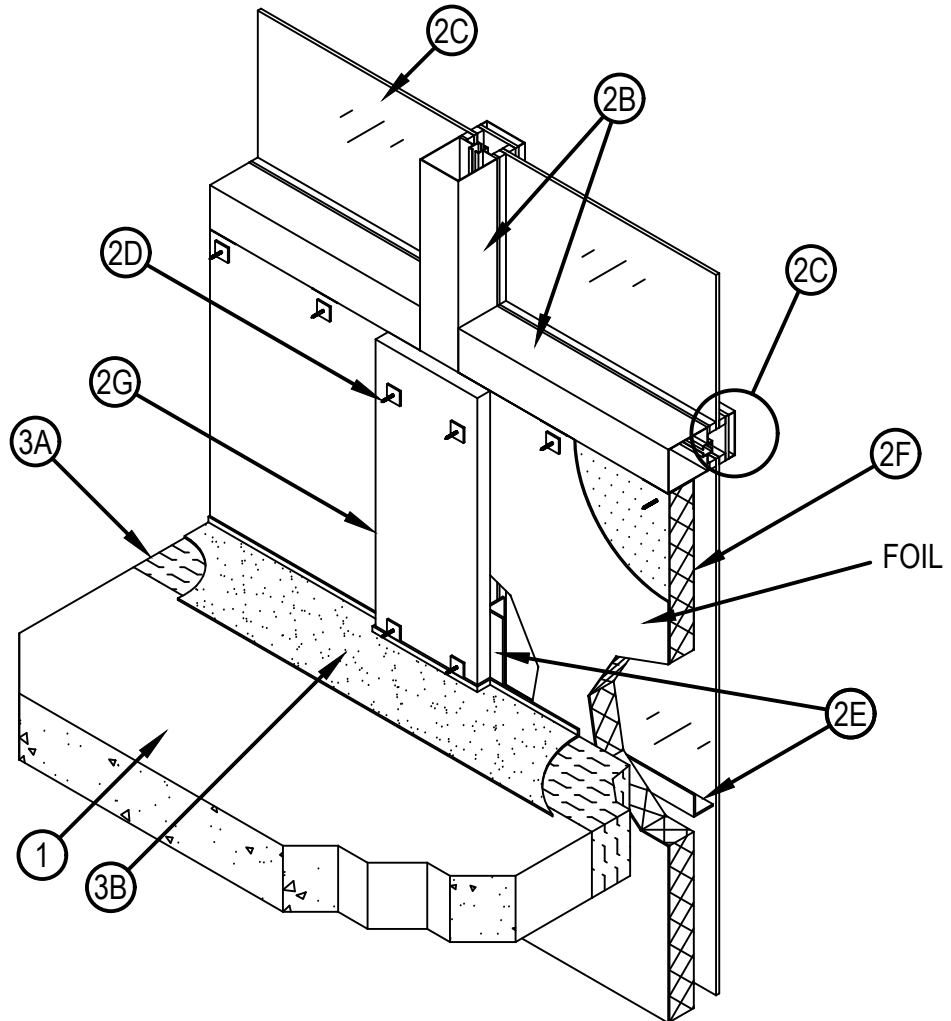
Design No. HI/JS 120-04
PERIMETER FIRE BARRIER SYSTEM

Hilti, Inc.
ASTM E 2307

Table 1

	FIRESTOP JOINT SPRAY CFS-SP WB	SILICONE JOINT SPRAY CFS-SP SIL
F-RATING	2-HR.	2-HR.
T-RATING	1 1/2-HR.	1 1/2-HR.
APPLICATION THICKNESS	1/8" WET FILM (1/16" DRY)	2mm (0.079") WET FILM
CYCLING (%) HORIZONTAL VERTICAL SEE ITEM 3A	NONE ±25 (50% COMPRESSION)	NONE ±25 (50% COMPRESSION)

L-Rating <1.0 SCFM/LF



1. CONCRETE FLOOR ASSEMBLY: Consisting of either a lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 4-1/2 in. at the joint face and rated for min. two-hours. When required, vary the overall slab thickness to accommodate various block out depths (longitudinal recesses) formed in the concrete, to house the architectural cover plate. When required, vary the block out width without restriction.
2. CURTAIN WALL ASSEMBLY: Incorporate the following features:
 - A. Mounting Attachment: (Not shown) Attach the aluminum framing (Item 2B) to the structural framing in accordance with the curtain wall manufacturer's instructions. When required, connect the mounting attachments to the joint face of the concrete floor assembly (Item 1), in accordance with the curtain wall manufacturer's instructions. Max. 10 ft. distance between mounting attachments.
 - B. Aluminum Framing: Size rectangular aluminum tubing mullions and transoms according to the curtain wall system manufacturer's guidelines but not less than the following requirements. Min. 0.100 in. thick aluminum with a min. 5 1/4 in. height with framing cover (Item 2G) and a min. of 2-1/2 in. width of the extrusion. Add framing covers (Item 2G) to the external side of the aluminum framing. Space mullions a min. 60 in. on center (oc) and spandrel transoms spaced a min. 47 1/2 in. oc. Locate spandrel transoms at a min. height 20 in. above the top surface of the concrete floor assembly (Item 1) (as measured from the bottom of the transom).
 - C. Glass Panels: Size and install glass panels to curtain wall framing in accordance with the curtain wall system manufacturer's guidelines. Use min. 1/4 in. thick clear, heat-strengthened (HS) glass with a max. width and height less than the aluminum framing (Item 2B) oc spacing, which allows the glass to be secured between the notched shoulder of the aluminum framing (Item 2B) and pressure bar. Secure glass panels with a thermal break (rubber extrusion), pressure bar (aluminum extrusion), min. 1/4-20 x 5/8 in. long screws, and a snap face (aluminum extrusion).
 - D. Impaling Pins: Size and install min. 12 GA steel pins min. 1/2 in. longer than the thickness of the curtain wall insulation (Item 2F). Attach pins to nom. 2 in. by 2 in. by 2 in. 20 GA galvanized sheet steel Z-clips. Secure the Z-clips to the aluminum framing (Item 2B) with one (1) No. 10 self-tapping sheet metal screw each. Space pins max. 12 in. o.c on the vertical framing members (Item 2B) and a max. 20 in. oc on the horizontal framing member (Item 2B) above the concrete floor assembly (Item 1). Install the interior face of the curtain wall insulation (Item 2F) so that it is flush with the interior face of the aluminum framing (Item 2B).
 - E. Reinforcing Angle: Create a min. 1-1/2 in. x 1-1/2 in. x 20 GA galvanized steel angle with 6 in. vertical legs at each end. Position the galvanized steel angle so that the vertical leg serves as a backer to the exterior face of the curtain wall insulation (Item 2F) and the horizontal leg extends away from the curtain wall insulation (Item 2F). Locate the galvanized steel angle at the elevation of the centerline of the perimeter joint protection (Item 3). Size the galvanized steel angle 12 in. longer than the span between the interior edges of the vertical aluminum framing (Item 2B), mullions. Form the galvanized steel angle so that it has a 6 in. vertical leg on each end. Secure the 6 in. vertical leg to the vertical aluminum framing (Item 2B) on each side with three No. 10 steel self-tapping sheet metal screws placed in a triangular fashion with a max. spacing of 2 in. oc.
 - F. Curtain Wall Insulation: Use only Intertek certified mineral wool. Install nom. 2 in. thick 8 pcf density mineral wool batt insulation faced on one side with aluminum foil scrim (vapor retarder), which is exposed to the room interior. Secure with impaling pins (Item 2D). Install the interior face of the batt insulation, when required compressed, flush with the interior face of the aluminum framing (Item 2B) creating a min. 1/2 in. air space between the insulation and the glass panels (Item 2C). When required, locate horizontal seams in the insulation 6 in. below top surface of floor.
 - G. Framing Covers: Use only Intertek certified mineral wool. Install nom. 1 in. thick, 4 in. wide strips of 8 pcf density mineral wool batt insulation faced on one side with aluminum foil scrim (vapor retarder), which is exposed to the room interior. After the Fill, Void or Cavity Material (Item 3B) is installed, center framing covers over vertical framing (Item 2B), mullions. Secure with impaling pins (Item 2D) spaced a min. 1 in. from both edges, and a max. 12 in. oc. Framing covers do not pass through the perimeter joint protection (Item 3). Butt framing covers to the top and bottom surfaces of the perimeter joint protection (Item 3).

3. PERIMETER JOINT PROTECTION: Establish a max. joint (linear opening) width of 2 in. (joint width at installation). Incorporate the following construction features:

A. Packing Material: Use only Intertek certified mineral wool. Install min. 4 in. thick, 4 pcf density, mineral wool batt insulation with the fibers running parallel to the slab edge (Item 1) and curtain wall. Compress the packing material 50% and install in the joint. Position the top of the batt insulation flush with the top surface of the concrete floor assembly (Item 1). The compressed packing material is secured against the interior surface of the curtain wall insulation (Item 2F), which is supported by the 20 GA steel reinforcing angle (Item 2E). Compress splices (butt joints) in the lengths of mineral wool batt insulation tightly.

B. CERTIFIED MANUFACTURER: Hilti, Inc.

CERTIFIED PRODUCT: Joint Spray or Sealant

MODEL: Firestop Joint Spray CFS-SP WB or Silicone Joint Spray CFS-SP SIL

Fill, Void or Cavity Material: To be applied (spray, brush, or trowel) to cover the top exposed surface of the packing material (Item 3A). Apply at the thickness specified in Table 1 and overlap the material a min. 1/2 in. onto the adjacent curtain wall assembly and concrete floor slab assembly. When application process is stopped and the applied material cures to an elastomeric film before the process is restarted, then overlap the edge of the cured material at least 1/8 in. with the new material.



Hilti Firestop Systems

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