

Specified Technologies, Inc.

Design No. STI/BPF 120-03

Perimeter Fire Barrier System - Curtain Wall Assembly

SpecSeal® AS200 Series Elastomeric Spray, SpecSeal® Fast Tack® Firestop Spray

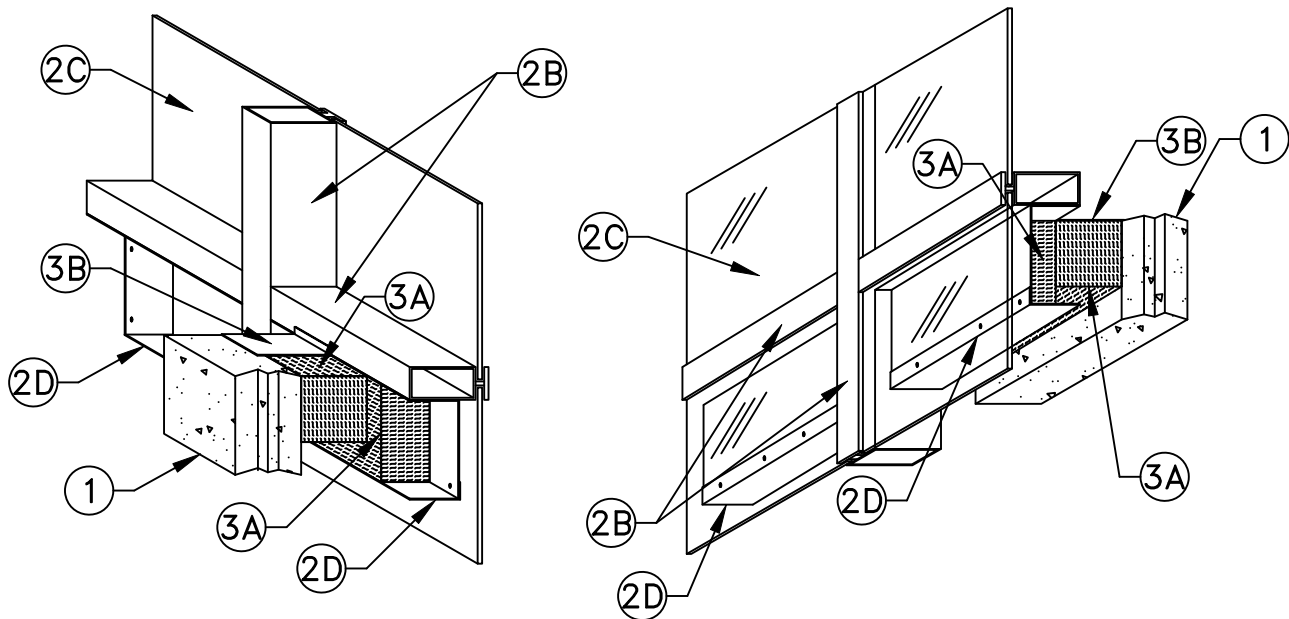
ASTM E2307 (2015b^e1)

Rating: F-Rating - 2 Hour, T-Rating - 2 Hour

ASTM E1399 (2013)

Movement Type = Class IV

Rated for ± 12.5% Horizontal Movement @ 25% Compression (See Item 3A)



1. **CONCRETE FLOOR ASSEMBLY:** Two hour rated concrete floor assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 4 in. at the joint face. Overall slab thickness may vary to accommodate various blockout depths (longitudinal recesses) formed in the concrete, to house the architectural cover plate. The blockout width may also vary without restriction.
2. **CURTAIN WALL ASSEMBLY:** The curtain wall assembly shall incorporate the following construction features:
 - A. **MOUNTING ATTACHMENT - (Not Shown)** The mounting attachments to the floor slab shall be connected to the joint face of the floor slab, in accordance with the curtain wall manufacturer's instructions. Attachments are to be secured in the perimeter joint protection region as required by the system design.
 - B. **ALUMINUM FRAMING -** Size rectangular aluminum tubing mullions and transoms, according to the curtain wall system manufacturer's guidelines. Min. overall dimensions of the extruded framing sections are 0.100 in. thick aluminum with a min. 3-3/4 in. depth and a min. of 2-1/2 in. width. Mullion and transom covers are added to the external side of the framing, giving the framing system a total depth of nominal 5-1/4 in. Mullions are to be spaced a min. 60 in. oc. For the spandrel region, locate the bottom surface of the transom flush with the top surface of the floor.
 - C. **VISION GLASS PANELS -** Size and install panels to curtain wall framing according to the curtain wall system manufacturer's guidelines. Use min. 1/4 in. thick, clear heat-strengthened (HS) glass, or tempered glass with a max. width and height less than the aluminum framing oc spacing which allows the glass to be secured between the notched shoulder of the aluminum framing and pressure bar. Panels are secured 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).



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D. PERIMETER SPANDREL PAN - Min. 18 GA five-sided box pan, 3 in. deep x 6 in. high, fabricated from galvanized or plain steel is placed between mullions for the entire length of the perimeter fire barrier, with the open side toward the concrete floor assembly (Item 1) and flush with the interior face of the transom. A bead of SpecSeal® Sil300 Silicone Firestop Sealant is applied to the underside of the transom, 1-1/2 in. inboard of the joint opening and the box pan sections are secured to the underside of the transoms in the aluminum framing (Item 2B). The box pans are secured with 3/4 in. long #10 hex- head self-drilling self-tapping sheet metal screws spaced max. 12 in. oc and 1 in. inboard of the joint opening. Two additional 3/4 in. long #10 hex-head self- drilling self-tapping sheet metal screws are installed through the vertical ends of the box pan into the adjacent mullions of the aluminum framing (Item 2B).

3. **PERIMETER JOINT PROTECTION:** The perimeter joint (linear opening) is not to exceed a 4 in. nominal joint width (joint width at installation). The perimeter joint treatment shall incorporate the following construction features:

A. **CERTIFIED MANUFACTURER:** Only Intertek

Certified Manufacturer

CERTIFIED PRODUCT: Mineral Wool

CERTIFIED MODEL: Only Intertek Certified Manufacturer's product meeting the min. requirements below:

PACKING MATERIAL - Fill the box pan sections to a depth of 2-7/8 in. with 4 pcf density, mineral wool batt insulation installed with the fibers running parallel to the floor. Compress the packing material 25% vertically in the box pans.

Install min. 4 in. thick, 4 pcf density, mineral wool batt insulation in the joint opening, installed with the fibers running parallel to the slab edge and curtain wall. Compress the packing material 25% in the nominal joint width. Compress the batt insulation into the perimeter joint flush with the top surface of the concrete floor slab (Item 1) and its mid-depth is compressed against the interior surface of the insulation-filled box pan (Item 2D). Splices (butt joints) in the lengths of mineral wool batt insulation are to be tightly compressed together.

B. **CERTIFIED MANUFACTURER:** Specified Technologies Inc.

CERTIFIED PRODUCT: Joint Sealant Spray

CERTIFIED MODEL: SpecSeal® AS Elastomeric Firestop Spray (AS200 Series), SpecSeal® Fast Tack® Firestop Spray

FILL, VOID, OR CAVITY MATERIAL - Apply a wet film thickness of 1/8 in. over the packing material (Item 3A) and overlap the liquid spray material a min. 1/2 in. onto the adjacent curtain wall framing (Item 2B) and concrete floor slab assembly (Item 1). If the spraying process is stopped and the applied liquid spray material cures to an elastomeric film before process is restarted, then overlap the edge of the cured spray material at least 1/8 in. with the liquid spray material.

* Before testing, the test specimen was cycled 500 times at 30 cpm according to ASTM E1399.



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