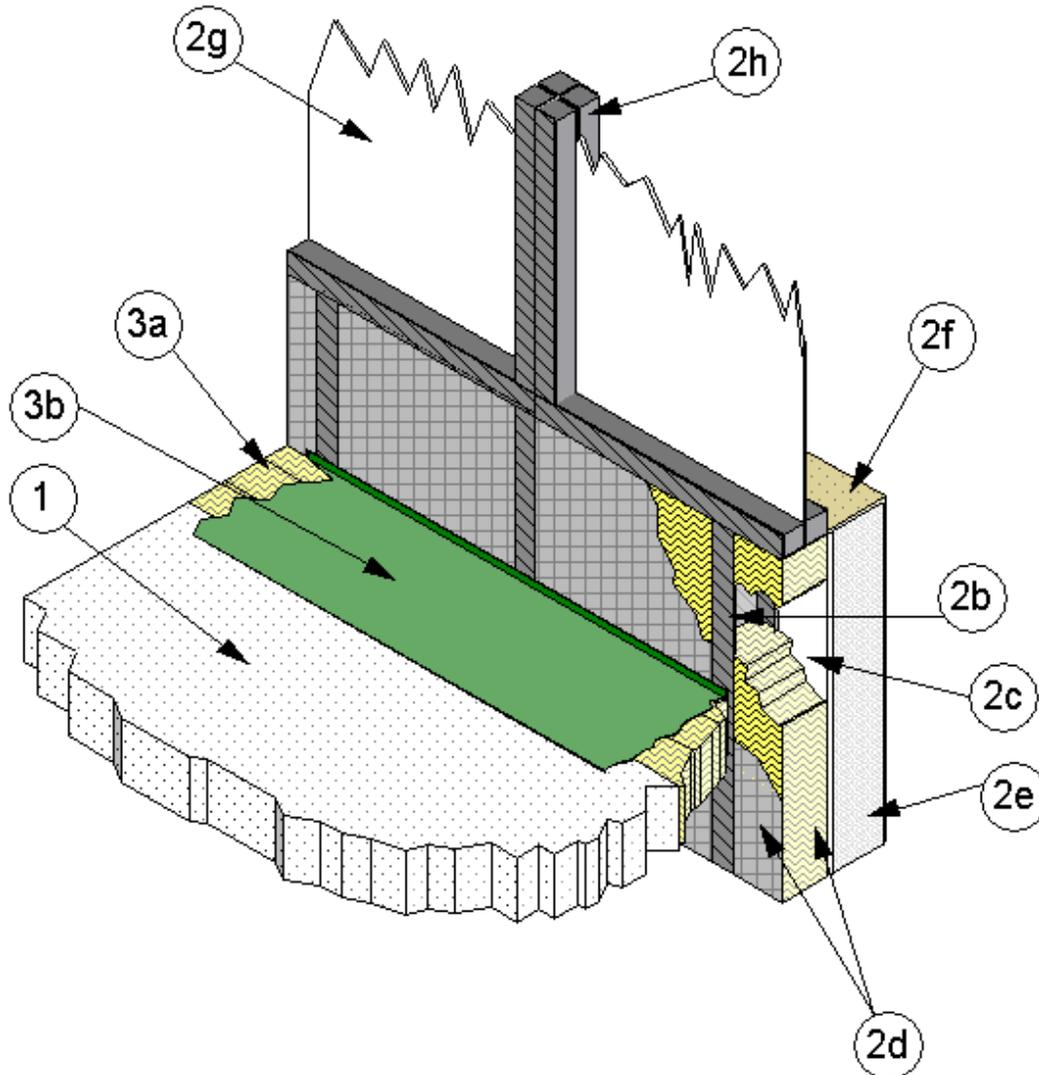


Tremco Inc.  
TL/JS 120-01  
Perimeter Fire Barrier System  
ASTM E2307-04  
F-Rating 2Hr; T-Rating 1Hr  
ASTM E1399

Rated for  $\pm 15\%$  horizontal movement @ 25% Compression (See ITEM 3A)  
Rated for  $\pm 10\%$  vertical shear 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 minimum thickness of 4-1/2 inch 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) Attachment of the curtain wall framing to the structural framing shall be according to the curtain wall manufacturer's instructions. When required, the mounting attachments to the floor slab shall be connected to the joint face of the floor slab, according to the curtain wall manufacturer's instructions. Maximum distance between mounting attachments shall be 48 inches o.c.

B. **Steel-Stud Framing:** Vertical framing members shall be a minimum 3-5/8 inch by 1-5/8 inch, 18 GA steel "C" studs secured in an 18 GA steel track top and bottom using #6 x 1.25-inch Bugle head SD PT screws. Vertical framing shall not exceed a spacing of 16 inch o.c.

C. **Sandwiched Wall Surface:** Use a minimum 1/2 inch thick, 48 inch wide by 96 inch long, exterior grade gypsum wallboard (ASTM C 79), placed over and secured to Steel-Stud Framing (ITEM 2B) with minimum 1-1/4 inch long Type S drywall screws 8 inch o.c. As an option, minimum 5/8 inch water-resistant Type X gypsum wallboard sheathing with embedded glass mat facing and non-flammable primer coating, and having a nominal weight of 2300 lb/msf. May be used in place of the gypsum sheathing.

D. **Curtain Wall Insulation:** A nominal 24 inch tall, 48 inch wide, 4 inch thick minimum 4 pcf mineral wool batt insulation, faced on one side with aluminum foil scrim (vapor retarder) which faces the room

interior, is cut to a nominal width 3/4 inch larger than the spacing of the Steel-Stud Framing (ITEM 2B) (Nominal 16 3/4 inch wide for framing spaced 16 inch o.c.) and installed in each stud cavity so that a minimum of 12 inches of insulation extends above the surface of the Perimeter Joint Protection Packing Material (ITEM 3A) and a minimum of 8 inch extends below the floor. Fit mineral wool batt insulation tightly between vertical framing members. The curtain wall insulation shall completely fill the recess of the Steel-Stud Framing (ITEM 2B).

E. **Exterior Curtain Wall Insulation:**

An Exterior Insulation Finish System (EIFS) is composed of expanded polystyrene foam (EPS) insulation, and an Exterior Curtain Wall Finish (ITEM 2F). The EIFS system is a monolithic assembly without expansion or control joints. The EPS foam boards measure 24 inches wide by 48 inches long by 4 inches thick with a nominal density of 1 pcf. The EPS foam is attached to the sandwiched wall surface using mechanical fasteners or an adhesive in accordance with manufacturer's recommendations. Install the EPS boards in a running bond (brick-like) pattern and staggered over Sandwiched Wall Surface (ITEM 2C) joints. Apply pressure to the EPS boards to assist in the bonding process. All EPS boards must be butted together with no gaps or voids between them. Allow a minimum of 12 hours before continuing the application process when using adhesive. The EPS boards must be rasped to remove all irregular seams and establish a continuous flat surface.

F. **Exterior Curtain Wall Finish:** The cementitious base coat and reinforcing mesh is applied over the Exterior Curtain Wall Insulation

(ITEM 2E). Precut the mesh as needed. The mesh is a woven fiberglass reinforcement fabric that is compatible with the cementitious base coat and finish coat materials. Apply 1/16 to 1/8 inch thick cementitious base coat to the exposed surface of the EPS foam. Apply the mesh; embed the mesh into the cementitious base coat using a trowel. Start at the middle and work outwards towards edges. The final thickness of the cementitious base coat with the mesh embedded should be approximately 1/16 inch. Let the cementitious base coat dry completely before applying the cementitious finish coat. The cementitious finish coat is a cement based wall coating which may contain silica sand or marble aggregates. Apply the cementitious finish coat using a trowel in the same manner as the cementitious base coat.

The following vision glass panel detail is included as an optional installation detail outside the spandrel area:

- G. **Glass Vision Panels:** Glass vision panels shall be a minimum 12 inch above the top surface of the floor assembly. Glass vision panels shall be installed to curtain wall framing according to the curtain wall system manufacturer's guidelines. Use a minimum ¼ inch thick, clear tempered glass with a maximum width of 56-1/2 inch and maximum height of 69 inch.
- H. **Window Gaskets:** Secure glass vision panels with a thermal break (thermal-set rubber extrusion).
- I. **Window Framing:** Steel framing members shall be a minimum 3-5/8 inch by 1-5/8 inch 18 GA steel "U" channel or similar construction that is compatible with Steel-Stud Framing (ITEM 2B). Locate window framing at least 12 inches. above

the top surface of the floor assembly.

- 3. **PERIMETER JOINT PROTECTION:** The perimeter joint (linear opening) shall not exceed an 8 inch nominal joint width (joint width at installation) and the perimeter joint treatment shall incorporate the following construction features:

- A. **CERTIFIED MANUFACTURER:** Only Intertek Certified Manufacturer

**CERTIFIED PRODUCT:** Mineral Wool

**MODEL:** Only Intertek Certified Manufacturer's product meeting the minimum requirements below.

**Packing Material:** Use a minimum 4 inch thick, 4 pcf density, mineral wool\*\* batt insulation installed with the fibers running parallel to the slab edge and curtain wall. The packing material shall be compressed 25% in the nominal joint width. Compress the mineral wool batt insulation into the perimeter joint such that the top surface of the batt insulation is flush with the top surface of the Concrete Floor Assembly (ITEM 1). Splices (butt joints) in the lengths of mineral wool batt insulation are to be tightly compressed together, minimum compression 1/4 inch per piece.

- B. **CERTIFIED MANUFACTURER:** Tremco Inc.

**CERTIFIED PRODUCT:** Joint Sealant

**MODEL:** TREMstop Quick Tack Spray

**Fill, Void or Cavity Material:** Liquid, mixed to a 1:1 ratio, is to be sprayed to cover the exposed surface of the mineral wool installed in the perimeter joint. Prior to application, apply a thin film of silane based primer to the vertical

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surface of the interior of the Curtain Wall Insulation (ITEM 2D) and Steel-Stud Framing (ITEM 2B) for a minimum ½ inch above the Packing Material (ITEM 3A) top surface line. Apply a minimum 1/16 inch wet film thickness to the Packing Material (ITEM 3A) and overlap the material a minimum 1/2 inch onto with Curtain Wall Insulation (ITEM 2D) and a minimum 2 inches onto the Concrete Floor Assembly (ITEM 1). If the spraying process is stopped and the applied liquid cures to an elastomeric film before process is restarted, then overlap the edge of the cured material at least 1 inch with the spray.

- C. **Support Clips:** (Not Shown)  
Support clips are optional but recommended for installations subject to vertical shear movement. Standard Z-shaped clips are 20 GA galvanized steel with the following dimensions: 1 in. wide by 3 in. high with a 2 in. upper leg and 3 in. lower leg.

\*\* Before testing, the spliced, test specimen was cycled 500 times at 30 cpm according to ASTM E 1399.