FWFO - Exterior Wall Systems

See General Information for Exterior Wall Systems

System No. EWS0008
June 09, 2014

ASTM E2357 - 0.0062 cfm/ft² (0.032 l/s·m²) @ 75 Pa (1.57 psf) - Category 1

ASTM E331 - 45 min. @ 300 Pa (6.27 psf)

Exterior Wall System

1. **Steel Studs** — Min 3-5/8 in. (92 mm) deep, formed of min 18 ga. galv steel spaced max 24 in. (610 mm) OC. Additional studs to be used to completely frame window openings.

2. **Interior Gypsum Board (BWFR)*** — Min 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide, attached to steel studs with 1-1/4 in. (32 mm) long, Type S steel screws spaced max 8 in. (203 mm) OC on the perimeter and max 12 in. (305 mm) OC in the field. Joints oriented vertically and covered with paper tape and joint compound. Screw heads covered with joint compound.

2A. **Batts and Blankets (BKNV)*** — (Optional, Not Shown) - The stud cavities may or may not be provided with faced or unfaced insulation.

**OWENS CORNING** — EcoTouch (unfaced), EcoTouch Flame Spread 25 (faced), or Thermafiber FireSpan 40 or 90
3. **Exterior Gypsum Sheathing (BWFR)** — Exterior-grade glass mat sheathing gypsum board, minimum 5/8 in. (16 mm) thick, attached to steel studs with 1-1/4 in. (32 mm) long, Type S steel screws spaced max 8 in. (203 mm) OC on the perimeter and max 12 in. (305 mm) OC in the field. Joints oriented vertically or horizontally. Additional sheathing to be used to line framed window openings.

3A. **Exterior Wall System Component - Sealant** — (Not Shown) - Sealant applied to all exterior sheathing joints and over all screw heads prior to application of air barrier sealant (Item 4).

   **TREMCO INC** — Dymonic 100

4. **Exterior Wall System Component - Combustible Air Barrier Sealant** — Applied to completely cover the gypsum sheathing at a min thickness of 35 mil (0.89 mm) dry, 70 mil (1.8 mm) wet thickness.

   **TREMCO INC** — ExoAir 230

5. **Foam Insulation (BRYX)** — Two layers of nom 2 by 8 ft (0.6 by 2.4 m) by 2 in. (51 mm) thick nom 1.55 pcf (24.8 kg/m³) extruded polystyrene insulation. First and second layer secured through gypsum sheathing into steel stud with min No. 8 by 3-1/2 in. (89 mm)and 6 in. (152 mm) long self-tapping steel screws in conjunction with 2 in. (51 mm) diameter, 0.2 in. (5 mm) thick plastic pronged continuous insulation washers. Screws/washers evenly spaced at 2 per board per layer, to temporarily secure foam board. The foam insulation shall be cut 4 in. short around the entire window frame to accommodate the mineral wool fire safing insulation (Item 8).

   **OWENS CORNING FOAM INSULATION L L C** — Foamular 250

5A. **Masonry Veneer Anchors** — (Not Shown) - Zinc barrel screw masonry veneer anchors with 1" long self-drilling tip attached into steel studs. Includes flanged head/integral zinc/EPDM washer, and thermal break clip to receive pintle wire tie. Installed on each stud spaced 16 in. (406 mm) vertically with 2 in. (51 mm), 0.2 in. (5 mm) thick plastic pronged brick-tie washers.

6. **Flashing Systems** — The following items may be used as flashing materials:

   A. **Exterior Wall System Component - Flashing Material** — Pre-assembled system including nom 18 in. (457 mm) wide rubberized asphalt flashing, drainage mesh, metal drip edge and termination bar attached to gypsum sheathing with min #12 by 2 in. (51 mm) long self-tapping steel screws with neoprene washers on max 24 in. centers. The flashing may be used above the window openings and at the bottom of the wall assembly.

   **TREMCO INC** — ExoAir TWF

   B. **Exterior Wall System Component - Combustible Air Barrier Sealant** — Applied to completely cover sheathing lining the window opening in conjunction with a nom 0.012 in. (0.3 mm) thick open-weave glass-reinforcing fabric embedded within the sealant.

   **TREMCO INC** — ExoAir 230

   C. **Mortar Droppings Protection** — (Not Shown) - Over steel lintel (Item 7), 10 in. (254 mm) high at bottom of air space on top of through wall flashing, 90% open weave polyester drainage mesh adjacent to weep vents. Thickness to fill air space cavity between foam insulation (Item 5) and exterior brick (Item 9).

7. **Steel Lintel** — Nom 4 in. (102 mm) wide by min 1/2 in. (13 mm) thick steel extending from face of studs into exterior brick at top of window opening and extending min 8 in. (203 mm) beyond each side of the opening.

8. **Mineral Wool** — Nom 4 pcf (64 kg/m³), 4 in. (102 mm) thick mineral wool safing insulation compressed min 25% and installed between the inside of the brick veneer and the exterior gypsum sheathing, full height of both jambs and across sill.

   **OWENS CORNING** — Thermafiber Safing Insulation

9. **Exterior Veneer - Brick** — Nom 4 in.thick clay brick offset to provide a nom 2 in. air gap between foam insulation (Item 5) and brick veneer with masonry veneer anchors (Item 5A) spaced a max 24 in. (610 mm) on center horizontally and 16 in. (406 mm) on center vertically.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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