



FWFO.EWS0025
Exterior Wall Systems

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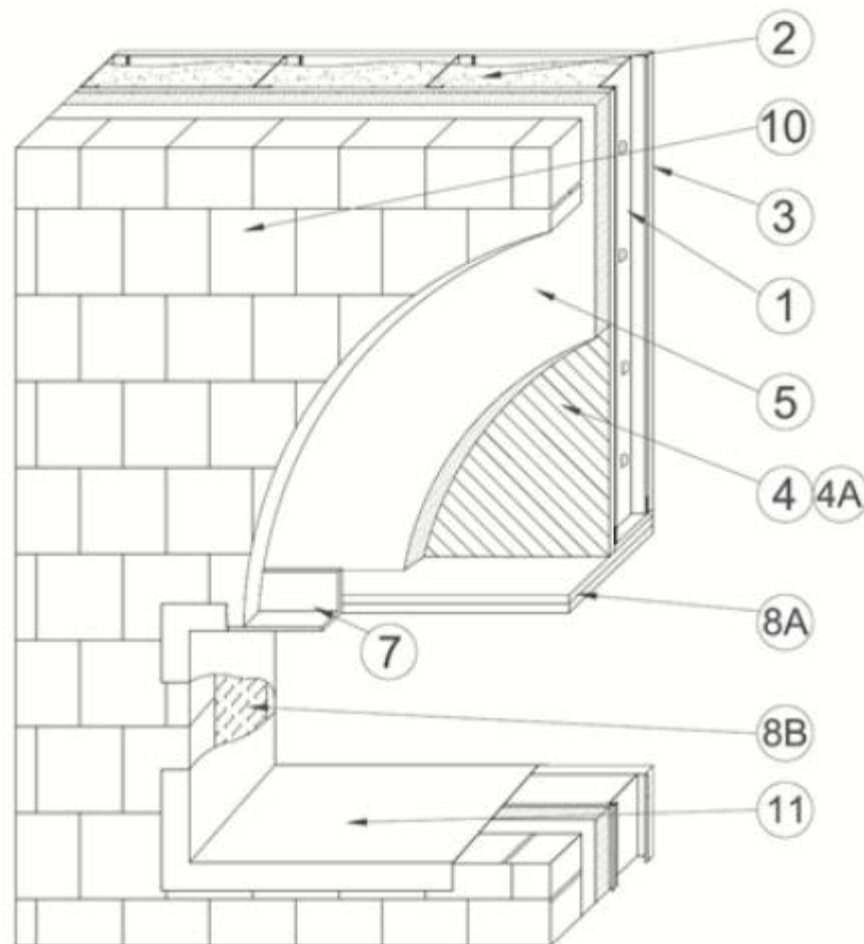
FWFO - Exterior Wall Systems

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System No. EWS0025

May 31, 2016

Exterior Wall System



1. **Steel Studs** — Min 3-5/8 in. (92 mm) deep, max 6 in. (152 mm) deep, formed of min 20 ga. galv steel spaced max 24 in. (406 mm) OC.

1A. **Alternate Base Walls** — (Not Shown) — Cast concrete walls or concrete masonry units (CMU) concrete walls may be used in lieu of Items 1 through 3.

2. **Exterior Wall System Component (FWFX) - Foamed Plastic Stud Cavity Insulation*** — Spray applied foamed plastic insulation applied to the stud cavity. Foamed plastic insulation is sprayed onto the interior surface of the exterior gypsum board (Item 4). Maximum 2.3 lb/ft² density, applied to a thickness for partial up to full stud cavity fill. When installed for a partial stud cavity fill the maximum air gap between the insulation and the interior gypsum board (Item 3) shall be max 1 in. Exterior wall assembly must include exterior gypsum board (Item 4) for inclusion of stud cavity foamed plastic insulation (Item 2).

BASF CORP — Walltite® HP+, Walltite® US, Walltite® US-N, Spraytite® 81206

2A. Batts and Blankets (BKNV)* — Mineral Wool — Alternate Stud Cavity Insulation — (Not Shown) — In lieu of foamed plastic stud cavity insulation (Item 2), 4 in. (25 mm) thick mineral wool pieces installed in stud cavities with slight compression completely filling stud cavity. When mineral wool (Item 2A) is used in stud cavity in lieu of foamed plastic stud cavity insulation (Item 2), exterior-grade gypsum board is an optional component.

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3. Interior Gypsum Board (CKNX)* — 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. Joints oriented vertically and covered with paper tape and joint compound. Screw heads covered with joint compound.

See Gypsum Board (CKNX) Category for names of Classified Companies.

4. Exterior Gypsum Board (CKNX)* — Exterior-grade glass mat gypsum board, minimum 1/2 in. (12.7 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. Joints oriented vertically or horizontally. Exterior-grade glass mat gypsum board is an optional component only when mineral wool (Item 2A) is used in the stud cavities. If foam plastic spray applied insulation (Item 2) is used in the stud cavities, then the exterior-grade glass mat gypsum board (Item 4) is required.

See Gypsum Board (CKNX) Category for names of Classified Companies.

4A. Exterior Wall System Component (CKNX) Air/Water Resistive Barrier* — Sealant applied to completely cover the exterior surface of the exterior gypsum sheathing at a maximum wet thickness of 46 mil.

BASF CORP — Enershield-I

5. Exterior Foamed Plastic Insulation (BRYX)* — Nominal 4 by 8 ft (1.2 by 2.4 m) sheets of expanded polystyrene insulation. Expanded polystyrene insulation secured to steel stud with self-tapping screws that are minimum 1 in. longer than the combined thickness of the EPS insulation and exterior gypsum board. Insulation fasteners used in conjunction with 2 in. (51 mm) diameter, 0.2 in. (5 mm) thick plastic pronged continuous insulation washers, every 16 in. on center maximum. Refer to table below for covered density and thickness ranges.

BASF CORP STYRENIC FOAMS DIV — NEOPOR®

Densities and Corresponding Maximum Installation Thicknesses for Item 5

Nominal Density (lb/ft ³)	Maximum Thickness (in.)
1.0	10
1.25	8-3/4
1.5	7-1/2
2.0	5

6. Masonry Veneer Anchors — (Not Shown) — Masonry veneer screw anchors with min 1 in. (25 mm) long self-drilling tip attached into steel studs. Length of masonry veneer anchor, not including self-drilling tip, shall be equal thickness of exterior foamed plastic insulation (Item 5). Includes flanged head/integral zinc/EPDM washer. Installed on each stud spaced 16 in. (406 mm) vertically.

7. Steel Lintel — Nom 4 by 4 in. (102 by 102 mm) by min 3/8 in. (8.3 mm) thick steel angle supporting brick veneer at header at top of window opening and extending min 8 in. (204 mm) beyond each side of the window opening into the brick veneer mortar joints.

8. Window System — The following combinations of items shall be used around openings in the exterior wall system.

8A. Plywood - Header Protection — Two layers of 3/4 in. (19 mm) thick plywood secured to header stud framing min No. 6 by 3 in. (72 mm) self-tapping steel screws. Plywood sheets span from interior gypsum board (Item 3) to back face of steel lintel (Item 7).

8B. Batts and Blankets (BKNV)* — Mineral Wool Header and Jamb Protection — At jambs of openings, nominal 1 in. (25 mm) thick mineral wool piece inserted between

exterior surface of exterior gypsum board to interior surface of exterior cladding (Item 10) with slight compression. Exterior foamed plastic insulation (Item 5) cut back 1 in. from exterior wall assembly opening to accommodate installation of mineral wool. In lieu of plywood (Item 8A), mineral wool (Item 8B) may be installed at window header at a nominal thickness of 1 in. in the same manner as the exterior wall assembly opening jambs, such that it is friction fit between the exterior gypsum and interior face of the steel lintel (Item 7).

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9. **Mineral Wool** — (Not Shown) — Any nominal 4 pcf (64 kg/m³), 8 in. (102 mm) thick mineral batt insulation installed within stud cavity at floor line locations. Insulation installed filling full depth of stud cavity for the full depth of the floor line.

10. **Exterior Cladding** — The following items may be used as exterior finishing for the wall system:

A. **Exterior Veneer — Brick** — Nom 3-5/8 in.-thick clay brick offset to provide a nom 2 in. (50 mm) air gap between foam insulation (Item 4) and brick veneer with masonry veneer anchors (Item 5).

B. **Concrete** — Min 2 in. (51 mm) thick with max 2 in. (51 mm) air gap between exterior wall insulation (Item 4) and concrete.

C. **Concrete Masonry Units** — Min 2 in. (51 mm) thick with max 2 in. (51 mm) air gap between exterior wall insulation (Item 4) and concrete masonry units.

D. **Stone Veneer** — Min 2 in. (51 mm) thick natural stone veneer with any standard non-open joint installation technique.

E. **Terracotta Cladding** — Min 1-1/4 in. (32 mm) thick with any standard non-open joint installation technique such as ship lap.

F. **Stucco** — Min 3/4 in. (19 mm) thick exterior cement plaster lath.

11. **Metal Flashing** — Minimum 25 ga thick steel to cover all inner surfaces of window perimeter and conceal plywood (Item 8A) and/or mineral wool (Item 8B).

*** Indicates such products shall bear the UL Certification Mark.**

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