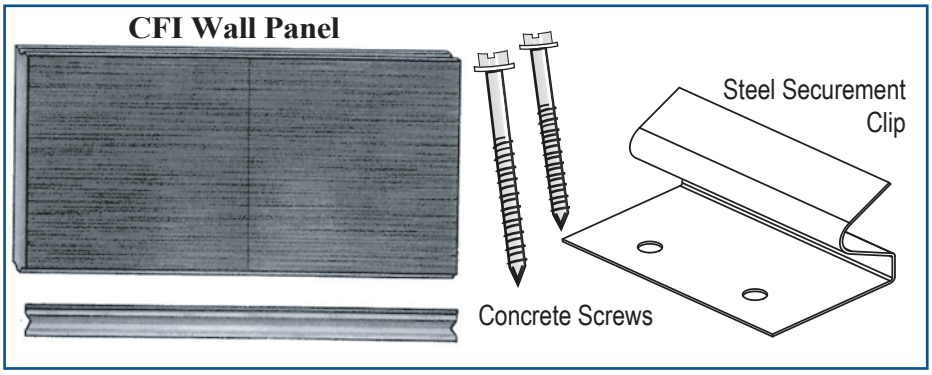
2010

TechnicalDataSheet

Perimeter Installation Procedures for Concrete Faced Insulated (CFI) Wall Panels



Concrete Faced Insulated Wall Panels are prefinished, "one-step" exterior insulating panels intended for use below and above grade in residential, commercial, industrial and institutional new and retrofit applications.

CFI Wall Panels consists of STYROFOAM®* Brand extruded polystyrene insulation with a factory-applied 5/16" (8 mm) thick latex-modified concrete facing. The finished panel surface is 24" x 48" (610 x 1220 mm) with a tongue and groove along the 48" (1200 mm) edge.

CFI Wall Panels are available in a standard insulation thickness of 2" (50mm, R-10), 3" (75mm R-15).

CFI Wall Panels are installed using specially designed galvanized steel mounting clips.

CFI Wall Panels provide superior insulation and a durable finish in one installation. They can be installed in any weather, without the need for highly skilled labor.

Design Considerations

CFI Wall Panels should be installed vertically in perimeter applications.

CFI Wall Panels are not suited for irregularly shaped buildings with many corners or curved surfaces, or for masonry foundations with many

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surface irregularities. As with any cement based product, color variation, efflorescence, and/or hairline cracking of the cementitious facing may occur. These phenomenon will not affect the performance of the **CFI Wall Panels. If uniform or matching coloring is required, a quality latex masonry coating must be applied.**

Handling and Storage Recommendations

CFI Wall Panels are shipped in shrink-wrapped pallets of 38 panels for 2" and 3". Securement clips and fasteners are included in the following quantities:

- 2 galvanized steel securement clips per panel
- 2 1-1/4" (33 mm) concrete screws per clip
- 20 longer concrete screws for surface fasteners

A forklift truck is recommended to unload the pallets and to move them around the site. The shrink-wrapped pallet cover should not be considered adequate long-term weather protection. Pallets should be stored on flat ground. Dry indoor storage or weather tarping is necessary until the panels are installed.

Panels can be cut using a masonry saw. Whether panels are wet cut or dry cut, cuttings should be rinsed or blown with compressed air off the surface of the panels, and cut panels should be individually handled until dry or installed.

CFI Wall Panels are durable product. However, the finished surface may be jeopardized if handled roughly. Delivery and installation scheduling are important factors to achieve quality results when using CFI Wall Panels.

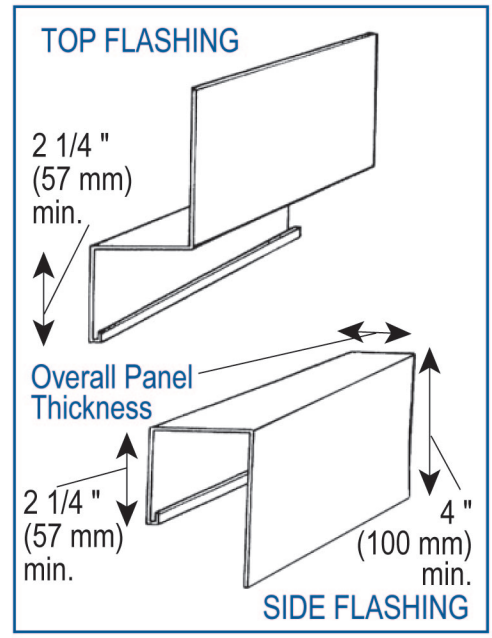
Material Checklist

To install **CFI Wall Panels**, you will need the following:

- Scraper, to remove wall surface irregularities
- Measuring tape
- Transit or builders level
- 48" (1200 mm) level
- Chalk line
- Rotary hammer drill
- 1 1/65" (4 mm) masonry drill bit or 3/16" (5 mm) concrete drill bit
- Flashing, where required
- Masonry saw or circular saw with diamond blade
- Hand ratchet with 3/8" hex head nut driver
- Polystyrene-compatible caulking or sealant (optional)
- Backer rods (optional)

Vertical Installation

1. **Prepare Foundation Wall Surface**
   a. Remove any masonry irregularities or jagged surfaces on the foundation wall before installing any panels.



(Optional). A minimum 4" (100 mm) return is recommended to secure J-channel flashing at corners; fill board grooves at corners with backer rods

b. Ensure the wall is properly damp-proofed below grade; allow damp-proofing to cure completely before installing panels.

c. Determine and mark the lowest installation point on the foundation wall. A level ledger plate of L-angle can be installed or make a level line on the wall where the top of the panel will be.

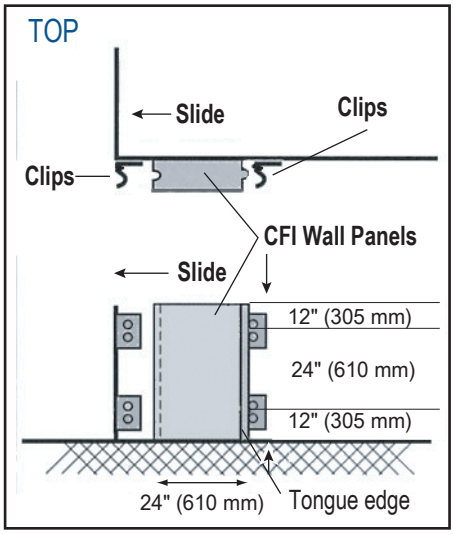
2. **Install First Vertical Row of CFI Wall Panels**

   a. Fasten first set of clips to wall corner, flush with wall face.

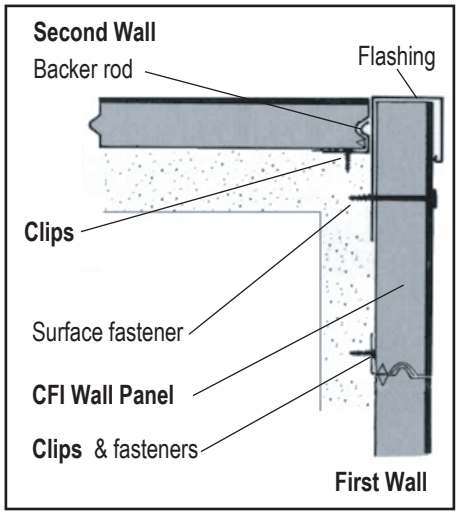
   b. Slide panel along level line or ledger onto mounted clips until flush with corner.

   c. Fasten tongue side clips to wall.

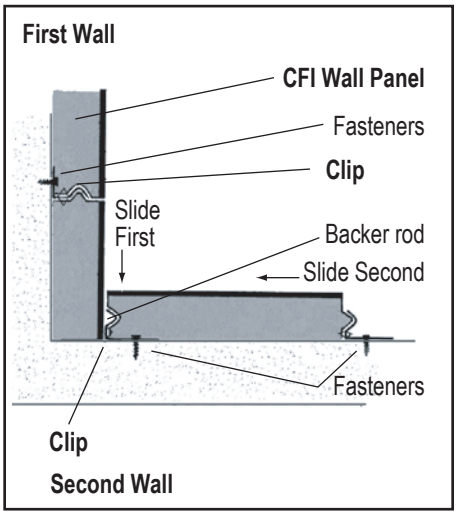
   d. For the next panel, and each subsequent panel, slide panel along wall on the ledger or flush with the level line. Mate panels snugly



**Vertical Installation -
First Row of CFI Wall Panels**



**Vertical Installation -
Outside Corner Detail Top View**



**Vertical Installation -
Inside Corner Detail Top View**

before fastening tongue side clips to wall.

e. Cut **CFI Wall Panels** to fit snugly around protrusions. Caulk or flash to seal. Fill voids with backer rods.

f. Repeat above until the row of panels is one full or partial panel from completion.

g. Complete the row with the following recommended details for inside or outside corners.

Note: Minimum recommended board width is 6" (150 mm). Partial boards, if required, should be located at corners to avoid having to secure with surface fasteners.

3. **Vertical Installation - Outside Corner Detail**

a. Fasten clips to the second foundation wall, flush with the corner.

b. Install first panel on the second wall as described in 2 (b) through (g).

c. Install last panel on first wall, ensuring it extends flush to the mortar surface on the panel mounted on the second wall.

d. Drill hole through surface of first panel at approximately 12" (305 mm) down from top and 3 ½" (89 mm) from cut edge of the panel. Install appropriately sized surface fasteners. Avoid over tightening the fastener.

e. Slide in flashing along corner after cutting flashing to slide past the bolt installed in (d). Install remaining surface fasteners through panel and flashing.

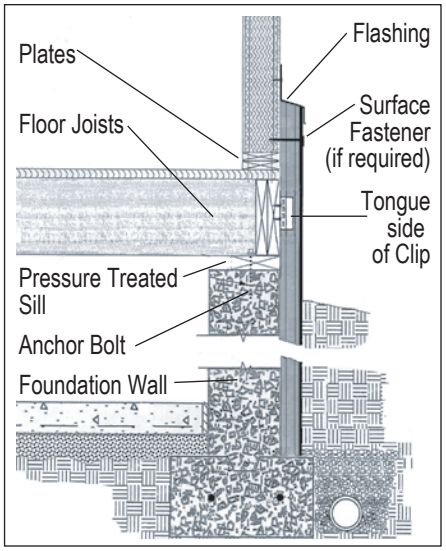
4. **Vertical Installation - Inside Corner Detail**

a. Cut groove side off last panel (as needed), slide into place, and fasten with tongue side clips, tight to inside corner.

b. Fasten inside corner slips on the next wall, tight to mortar face of the corner panel installed in (a).

c. Slide grooved edge of the panel onto mounted clips - tight to the panel on the inside corner.

d. Fasten tongue edge clips to the wall.



Top of Foundation Detail - Vertical

5. Top of Foundation Detail
   a. Where suitable, **CFI Wall Panels** may be extended above the top of the foundation wall to provide an uninterrupted thermal barrier at the box joist.

   b. Flash as required to provide adequate protection against water infiltration.

Replacing Damaged Boards

If a **CFI Wall Panel** is damaged, the following steps are required to replace it:

a. Cut along the 48" (1220 mm) edge to remove panel tongue.
b. Pry the panel out.
c. Remove the tongue from the replacement panel.
d. Slide the new panel into place and surface fasten with appropriately sized fasteners.

Note: In most cases of impact damage, a latex modified patching repair compound can be used to refinish the mortar surface without having to replace the panel. Most effective if the panels are coated with an acrylic latex coating and the color can be matched to hide the repair. Smaller impact cracks can be repaired with a suitable latex caulk.

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