

Bay Insulation

Installation Instructions

Filled Cavity – Double Layer Wall Systems

Materials Required:

- Faced Fiberglass Insulation (NAIMA 202 or equivalent) with 2- 3” tabs, (or one 6” tab (tape) where applicable) in widths to match girt spaces and lengths approximately 1 foot longer than bay spaces.
- Unfaced Fiberglass, supplied in rolls at specified R-value, length and width (NAIMA 202 or equivalent).
- Metal Banding - Supplied in rolls 3/4" x 1700 lf or 1-3/8" x 1000 lf.
- Banding Screws – 1/2” – 3/4” hex-head TEK screws
- 1/8” thick x 3” wide self adhesive foam tape (where applicable).
- 1”x 3” thermal blocks (where applicable)
- 1-1/2” double sided tape

Materials shall be inspected for damage, proper sizes and quantities upon delivery and should be stored in a dry, secure manner. Notify carrier and your laminator of any damaged material, improper sizes or shortages immediately upon delivery.

Side and End Walls

Outer layer installed perpendicular to the girts

Prior to installing the fiberglass, either 1/8th inch foam tape or 1” x 3” thermal spacer blocks (where applicable) should be applied to the exterior side of the outer girt flange surfaces and any other secondary framing.

Once the foam tape or thermal spacer blocks have been installed, the wall insulation (either faced or unfaced) should be attached to the eave strut or rake angle with clamps or double faced tape (where applicable) and rolled downward from the roof on the outside of the girts.

If faced insulation is used:

- Install the facing toward the exterior of the building (note moisture dynamics needs to be considered to determine the correct water vapor transmission rate. Perforated facings may be required). It is important that you do not install two low permeance vapor retarders, one on each side of the insulation, which can trap moisture and essentially create a double vapor retarder situation.
- The (outer layer) of metal building insulation should be cut to length plus an additional 12" per (roll), measured from the base angle to the eave strut or rake.
- At the base angle, carefully remove 12' of fiberglass from the facing at the end of the roll to create an extended facing tab at bottom of the wall.
- This extended tab should be wrapped under the exposed lower edge of the insulation and will eventually be sealed to facing on the inner layer of insulation to help prevent water from wicking into the fiberglass at the base angle.

When unfaced insulation is used:

- A sheet of facing measuring 12" by the width of the fiberglass should be laid on the ground under the lower edge of the insulation at the base angle.
- 6" of this facing should be attached to the outer surface of the insulation (up 6" from the bottom edge of the fiberglass) with outward clenching staples. This will later be attached to the facing on the inner insulation layer to help prevent water from wicking into the fiberglass at the base angle.

The width of the wall insulation should extend 12" beyond the leading edge of the wall panel. At the end of the wall, the fiberglass should also extend 12" beyond the wall panel on each side, to allow for the insulation to wrap around the corner.

Adjacent and additional rolls of insulation should be installed in the same manner with edges butted snugly.

If there is no base trim, use a foam or rubber closure. If rodent protection is needed, a foam or rubber closure is recommended.

Faced Inner layer Installed Between the Girts:

When girt spacing allows, the faced insulation should be installed parallel to, and between the girts, completely filling the cavity.

The tabs should be taped to the exposed face on the inner girt flanges (or overlapped to the facing tab from adjacent girt spaces) with a suitable double sided tape to form a continuous vapor retarder. Note, it may be necessary to peel the facing from the fiberglass at the girt flange to allow the insulation to fill the cavity

When girt spaces are wider than the available fiberglass width. It is acceptable to install two or more runs of fiberglass horizontally to completely fill the girt space.

As an alternate the faced insulation can be installed vertically and seamed with self sealing overlapping tabs.

When multiple glass runs are installed to fill the girt cavity, it is important that the edges of the glass from adjacent runs are in direct contact with each other and that the facing tabs are overlapped and taped with double sided tape to form a continuous vapor retarder.

At the main frames, the insulation should completely fill the girt cavity behind the column (when applicable). The facing can either be cut vertically, and sealed to the main column with suitable tape or sealant, or the facing can be installed with the insulation behind the main frame. When the faced insulation is installed behind the column, it is important to trim and seal the facing at the upper and lower girt intersections with a suitable tape or sealant.

At the base angle, the lower facing tab should be attached to the tail of the outer facing layer to completely wrap the lower edges of the glass to help prevent water from wicking into the fiberglass.

Banding:

The banding should be installed perpendicular to the girts 30" on center.

The banding should be cut long enough to run from eave or rake to the base angle.

The banding should be attached to the face of the girts, over the facing, with ½" or ¾" TEK screws.

It is important to plan the project to make certain that there is no exposed insulation at the end of the work day or at the onset of inclement weather. As such:

- Only install the insulation as far out as you can sheet in one day or as weather permits.
- Do not leave any insulation exposed to the elements overnight; the system is not designed to support the added weight associated with heavy rain or snow.
- As the erector/installer, you assume responsibility for all materials once onsite. It is in your best interest to protect the insulation from getting wet.

These instructions are meant to be a guide; they are not the only way to install this type of system. Modifications will likely be necessary to accommodate project variables. A cross section diagram has been provided to illustrate the final installed system.

