

Installation Guide

Residential\Commercial\Industrial

Metal Wall

New\ Retrofit

DIY – Do It Yourself Ready

Contractor - Ready

Tools: Cutting knife, measuring roll, Driller or electric screwdriver.

Installation Accessories: self tapping screws, Polynum or equivalent joints sealing tape.

Recommended to use protective glasses.

Products range: All Polynum™ products.

General: Polynum™ insulation can be easily installed combined into metal frame\walls in PEB (Pre Engineered Buildings, walls made of metal frame with metal of aluminum finish, and general industrial\commercial buildings). In all cases, Polynum can be installed horizontally, or vertically. The installation technique depends on structure height and shape. Regardless the installation technique, both, installation principles and Polynum's thermal performances, are identical. If using FLAT external metal wall, or weather board, or, other flat cladding which are directly fixed on Polynum, without additional strips or, holding lines (dry fixing lines), it is recommended to allow some sagging to create small air cavities between Polynum and the wall. However, in majority of installations, due to the nature of metal frame, and installation techniques, air cavities are created without the need for sagging, ensuring optimum insulation performances in all weather conditions without sagging!. In this guide, we follow typical metal wall structures, without sagging.

Step 1:

With a measuring roll, measure the wall length, or width (if wrapping Polynum horizontally around the wall frame). In many new buildings, such information is readily available following the technical drawings.

Step 2:

Unwrap Polynum insulation from its original packaging. Using cutting-knife, cut the Polynum at the desired length (prepare Polynum "shreds" per the required length). Allow 10cm (4" inches) for edge overlapping at the end of each piece. (Example: If ceiling length is 7.00m, and width is 4.00m you will need to cut 4x Polynum shreds, 7.20m (Approx 21 feet long each).

If installing Polynum in large structures, there is no need to pre-cut and prepare insulation shreds. In such cases, just fix Polynum at one edge unrolling along the frame, until reaching the final post\frame.

Step 3:

Move along or across the frame and fix Polynum with self tapping screws. Fix Polynum to each frame line. Make sure to stretch the Polynum shreds to avoid sagging. Allow 10cm to 15cm (4" to 6" inches) interval between each fixing screw. In many cases, the metal\aluminum walls are screw in the very same frame, used by Polynum. In such cases, there is no need to fix Polynum in small intervals, rather, can fix Polynum in few points along the frame, just enough to ensure proper stretch and holding during installation of the walls, and in case of side wind.

Step 4:

Upon finishing fixing the first Polynum sheet, continue with the second sheet. Follow step 3 for all sheets. If using self adhesive product: upon proceeding, secure the joints (over-lapping) with Polynum self-adhesive strips. When using Polynum without self-adhesive: When fixing the Polynum onto the frame lines with already installed Polynum, 50mm (2 inches) of overlapping is required. Ensure to fix both Polynum joints together. Use Polynum heavy duty closing tape to seal the joints prior to wall installation.

Step 5:

Install external wall as instructed by wall manufacture or architect specifications.

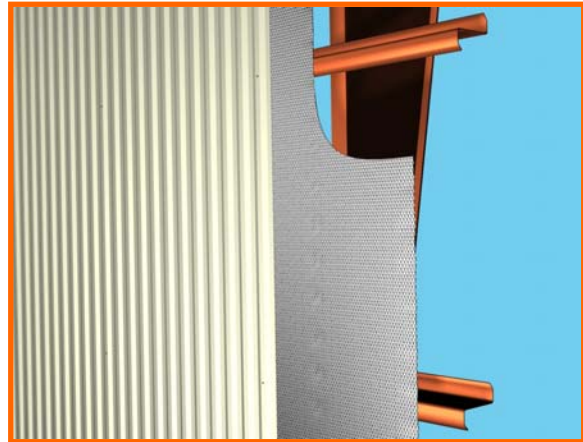
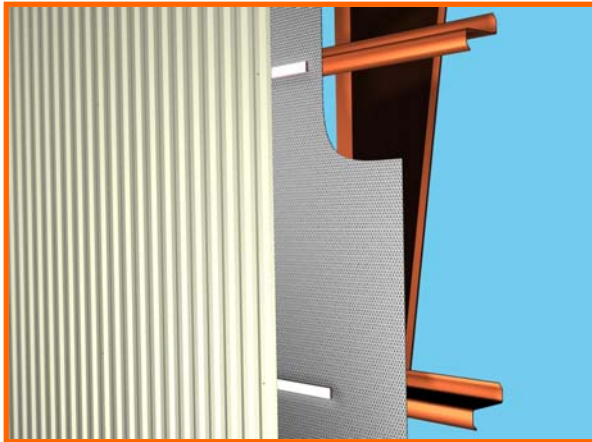
Finishing walls:

In some structures (residential, commercial, partial areas in industrial buildings) finish walls will be installed. Such walls, usually made of plaster, or, gypsum or alike, will be fixed on the internal side of the metal frame. In principles, there is no need to add additional insulation, or, vapor barrier when installing these walls. In the event that the specifications required adding bulk insulation, there is no need to add vapor barrier or aluminum foil. Polynum is vapor barrier, radiant barrier and insulation, all in one.

Tip: There is no need to add vapor barrier. Aside from being an excellent insulation solution, Polynum acts as vapor barrier too...!

Coloring options in open wall:

If wish to have white finish please consider to use Polynum White, or, Polynum One. Both products delivered with single white color finish. If other color is required (black, copper), please contact R.F.I. for further product availability and specification details.



- Polynum™ installation process is clean, fast and efficient
- Polynum™ required less labor and less time covering similar area compare with bulk insulation
- Polynum™ can be installed anywhere in the buildings.
- Polynum™ only required measuring tape, cutting knife, ducting tape and pair of hands...
- Polynum™ can be left exposed for the installation duration. No need extra cover or handling.
- Polynum™ can be shaped and cut to size, reduced wastage!
- Polynum™ requires no gloves or special protection aids.
- There are almost no limitations to where Polynum™ can be used

Illustration: fixing Polynum onto metal walls:

