



INSTALLING POLYISO INSULATION BOARDS



Purpose

To install Polyiso insulation flat and tight using either screws or low-rise foam, meeting Florida building codes.



Why "Polyiso"

Polyiso keeps heat out (more insulation value than any other per inch) and gives us a solid, smooth surface to install TPO.

It can also be "tapered" which means a slight slope built into the panels. It can be installed with screws/plates or with a foam adhesive so can be installed on just about any roof deck.

Tools and Materials Needed

- Polyiso insulation boards
- Straight Blade Utility knife
- Tape measure
- Screw gun.
- Marker or chalk line
- 1 5/8" screws if direct install over deck (longer if over existing layer of roofing)
- Insulation plates

If using low rise foam (such as OlyBond):

- Low-rise foam adhesive
- Correct adhesive gun and hoses
- Buckets and lids for weight. Sand works best for weight. Water buckets can create a hazard on the roof in case tipped over.



3" for 2" ISO over deck, longer for thicker insulation



Foam Adhesive Is commonly used for concrete/gypsum decks.

1

Prep the Roof Surface

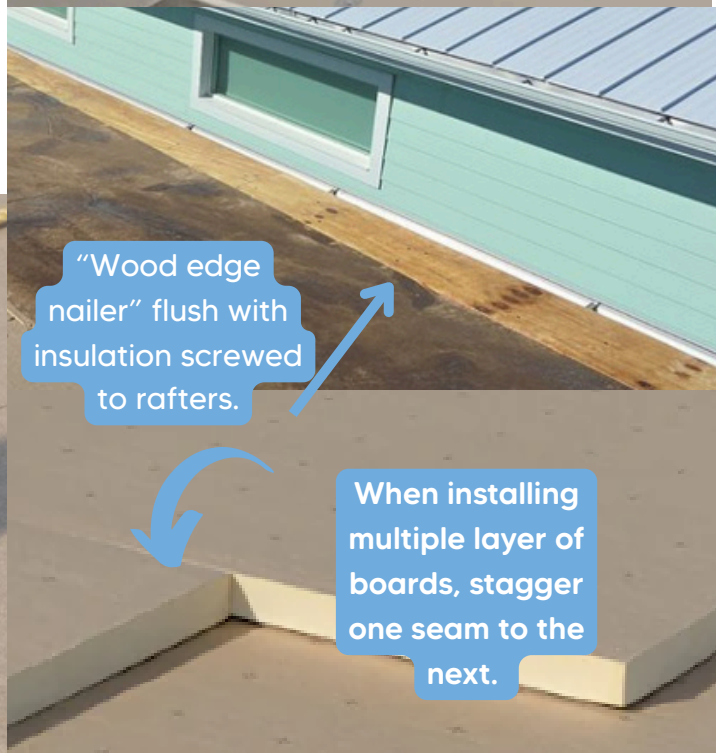
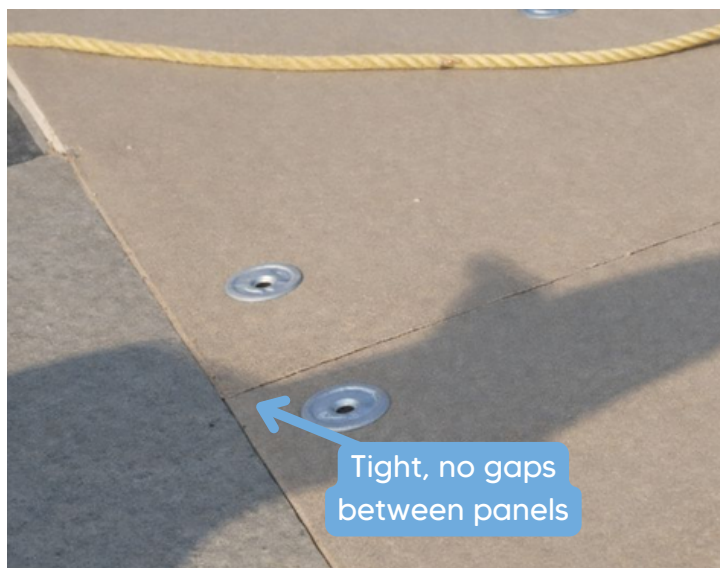
- Make sure the roof deck is solid, clean, dry, and free of debris.
- Nail down or remove any raised nails or sharp edges that could damage the insulation.
- Blow off and sweep clean the roof surface.



2

Layout the Boards

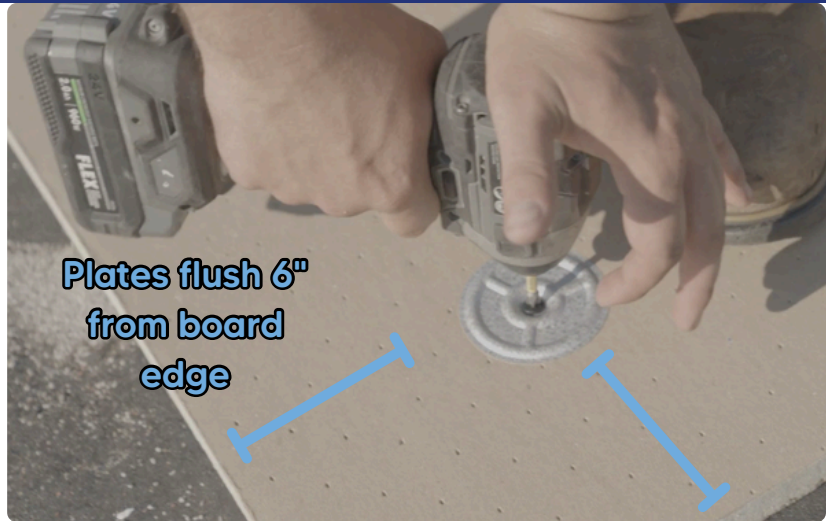
- Start at the bottom or lowest side of the roof.
- **Install a 6" wood edge nailer at all edges flush with insulation height. This provides far greater wind resistance for roof edges.**
- Lay boards in a staggered pattern, like plywood so seams don't line up (at least 1' of between seams).
- Boards must fit tight with no big gaps, maximum gap is 1/8".



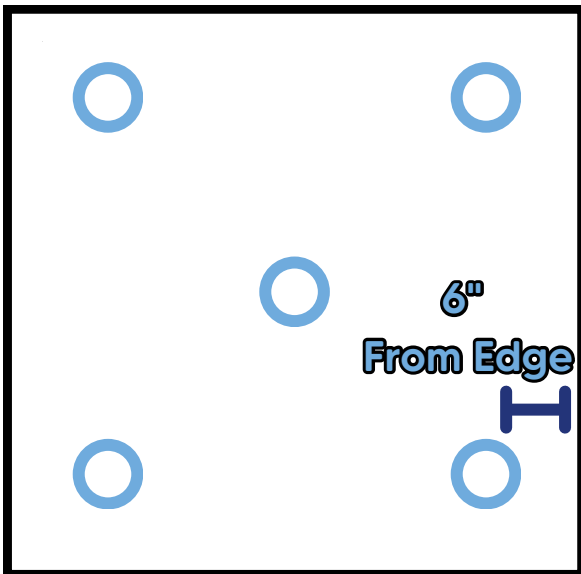
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Method 1: Screws and Plates

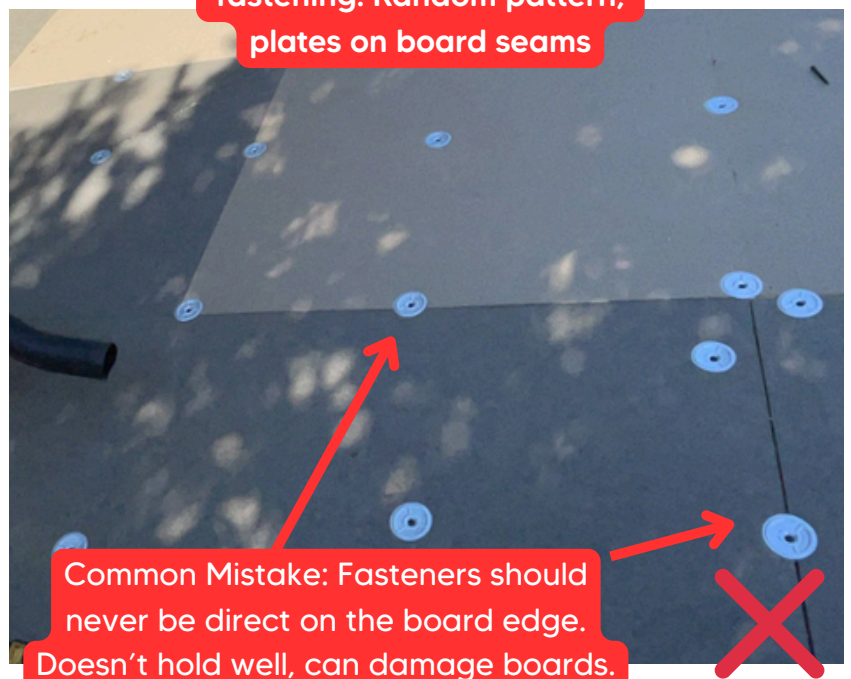
- Use roofing screws with round **insulation plates** (no teeth) to hold down the boards.
- Screw pattern depends on roof height, location, and wind zone, get pattern from jobs project manager.
- Minimum: 5 fasteners per board for 4' by 4' (1 in each corner, 1 in center) fasteners should be 6" away from edges of board. **Never over edge.**
- High wind: 8-12+ per board (use diagram from PM). These kind of patterns are used if gluing the TPO down to strengthen the ISO.
- Screws must go into the deck or steel purlins solidly and flush.



5 Fastener Layout for 4' by 4' pannel



Example of incorrect polyiso fastening. Random pattern, plates on board seams



4

Method 2: Low-Rise Foam (IE: Olybond)

- **Perform a test of the low rise foam before starting.** To accomplish this adhere a 1' by 1' test board to the deck, weight it down and wait 5-8 minutes. Ensure that it is properly adhered, a well adhered board should have the coverboards facer layer fail before the foam fails.
- Check the color of the foam, Olybond is a light pink, some other foams come in different colors, **check the adhesive instructions.**
- Apply lines of foam, $\frac{3}{4}$ "-1" ribbons to the deck.
- These ribbons should be installed at 4" on center on board in roof corners, 6" on center on roof edges, 12" in the roof center Project managers will be able to give exact needs based off building location.
- Foam should mound up like toothpaste and will sit and take 10-15 minutes to dry depending on temperature.
- Place board on top of the wet foam, press down, and walk on it, then use weight to set it. **Even weight applied to each corner.**

Note: Always review the manufacturers instructions as each low rise foam may be slightly different.



CUTS AS NEEDED IN ISO

- Use a utility knife or insulation saw to cut boards around pipes, drains, and curbs.
- Make cuts tight and clean.



✓ Final Checks :

- ✓ Boards are staggered and fit tight
- ✓ Screws or foam are spaced correctly
- ✓ No loose boards or rocking edges
- ✓ Cuts are clean around pipes and walls
- ✓ Area is ready for next roof layer (cover board, membrane, etc.)

✗ What Not to Do

- Don't install on wet deck or dirty deck.
- Don't skip low-rise foam test
- Don't walk on boards or remove weight until olybond has fully cured (check with PM).



Installing Polyiso Insulation Boards

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