



HIGH PERFORMANCE ATTIC – OPTION B WIRED BATT INSTALLATION GUIDE

The 2016 California Building Energy Efficiency Standards (Title 24, Part 6) which took effect January 1, 2017 provides builders with a number of options for improving the energy efficiency of newly constructed residential buildings. One option is the High Performance Attic – Option B for ventilated attics which utilizes a secondary layer of insulation at the roof deck in addition to the primary thermal insulation layer on the attic floor. The intent of this document is to provide guidance on the installation of Owens Corning secondary thermal insulation at the roof deck in residential and light frame commercial construction. This document constitutes the manufacturer's installation instructions.

DESCRIPTION

This document applies to a ventilated attic with unfaced fiberglass insulation applied to the underside of the roof deck as a secondary insulation. The air barrier and primary insulation for the building are located at the attic floor.

The use of a secondary insulation layer at the roof deck can help to minimize the effect of heat on ducts and HVAC systems by lowering the attic air temperature on hot summer days.

RESTRICTIONS

These installation guidelines only apply under the following conditions:

- The attic is to be ventilated in accordance with California Residential Code Section R806.2.
- The air barrier and the primary thermal insulation are at the attic floor.
- The secondary thermal insulation on the roof deck is not used to comply with any/all code requirements for building energy conservation at the attic floor.
- The insulation does not have a facing (unfaced).

INSTALLATION GUIDELINES

The fiberglass blanket insulation is to be secured in direct contact with the underside of the roof deck using mechanically fastened wires attached to the framing members.

Personal Protective Equipment

- Eye protection
- NIOSH Standard N95 Respirator
- Hard hat
- Cut-resistant gloves
- Safety shoes/boots
- Fall protection – The workers must use OSHA required fall protection when installing any portion of this product at heights. See OSHA regulations at 29 CFR 1926, Subpart M, as well as OSHA Fact Sheet: Reducing Falls during Residential Construction: Working in Attics (DOC FS-3553).

Materials

- Blanket insulation – Owens Corning glass fiber blanket building insulation is manufactured in precut sizes. There are either batts or rolls, either of which is suitable for this application. The width dimension for all blanket products is intended to match standard framing member on-center spacing. The blanket must be unfaced. NOTE: KRAFT PAPER AND FOIL FACING ARE FLAMMABLE AND CANNOT BE USED IN EXPOSED APPLICATIONS.
- Wire & Fasteners – 0.048" diameter annealed wire (18 ga.) with 20 ga., 5/16" leg staples or 6d common nails or #8 wood screws, minimum.

Wiring Installation Options

There are two acceptable wiring options for supporting the blanket insulation at the underside of the roof deck that are shown in Figure 1 – Diagonal and Cross. Figure 1 also shows the wire spacing requirement, which is 12" maximum within a piece of blanket insulation and 4" maximum at its end.

The wires are stapled with three (3) 20 ga., 5/16" leg staples or wrapped around pre-placed nails/screws at the lower face of the framing member at each intersection point such that the distance of the wire from the roof deck coincides with the framing and insulation thicknesses. When the insulation thickness is greater than the cavity thickness, compression will occur at the wire. This is acceptable for the secondary insulation at the roof deck. The wiring procedure for these vertical areas is the same as that for the roof deck.

Blanket Installation

- For cavities that are not standard width or length, or are not rectangular in shape, the blanket insulation will have to be field fabricated. This is done by hand with a sharp utility knife and straight edge. The finished piece should be cut slightly more than the non-standard dimension(s), to provide a snug fit.
- When the cavity contains obstructions such as a plumbing stack or structural bracing, the blanket insulation will again require some field fabrication so that the insulation fits snugly around the obstruction.
- The insulation should be held back from all vent spaces to avoid blockage.
- The insulation should not be installed within 3" of a heat source.
- The insulation should not be stapled to the framing or sheathing in any locations.

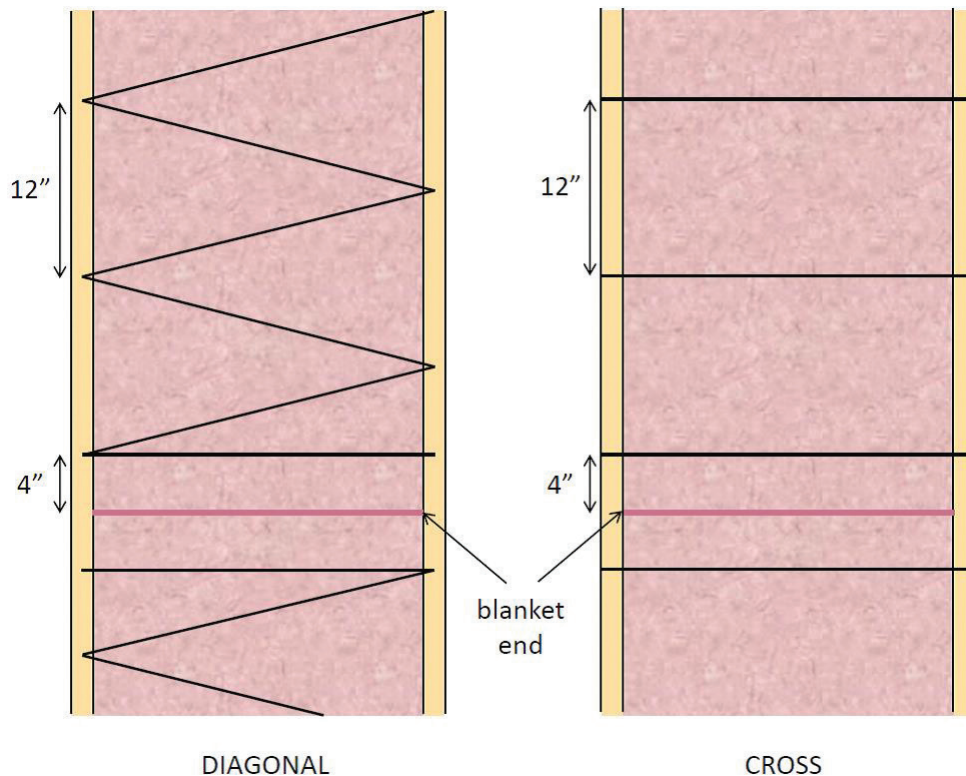


FIGURE 1: Wiring options to support blanket insulation. Images show a 24" o.c. truss/rafter spacing as viewed from below. Dimensions shown are the maximum wire spacing distances.