

Insulate an Attic or Knee Wall With Two-Part Spray Foam

Job Aid for Seal and Insulate Knee Walls Badge

Aligns With Standard Work Specifications 4.0104.5, 4.0104.6

BEFORE



Install durable backing material into any large gaps before applying spray foam to prevent foam from leaking into conditioned space. All surfaces in contact with foam should be free of dust and debris. Ventilate the work space according to manufacturer specifications to ensure workers and occupants are protected from spray foam vapors during and after installation.



Ensure installers are wearing appropriate personal protective equipment (respiratory, skin/body, and eye). Follow the manufacturer's specified temperature guidance for ambient air, surface, and chemical to avoid product failure.



Separate all foam products from living space with a thermal barrier material such as 1/2 inch drywall. Additionally, if the attic is only used for the service of utilities, foam will be separated from the attic space using a suitable ignition barrier. If the attic space is used for storage or occupancy, spray foam will be separated from the attic using a suitable thermal barrier.

AFTER



Spray walls as evenly as possible to the prescribed thickness to achieve the desired R-value. Consult with the manufacturer to determine the correct R-value per inch as it can vary by manufacturer.

CHECKLIST

Seal and insulate knee walls

DESIRED OUTCOME

Knee walls framed to prevent thermal bypass and sealed to prevent air leakage between conditioned and unconditioned space.¹

Air sealing

(check prior to insulation):

- Existing insulation was removed or adjusted to allow access to top and/or bottom of knee wall.
- Rigid blocking or other durable material installed:
 - Beneath the knee wall (floor running under knee wall) and
 - Above the knee wall (ceiling cavity/ventilation chute/top plate).
- Installed blocking will stop airflow and support insulation.
- All joints, cracks, and penetrations, including connection between interior surface and framing, are air sealed.

Insulation:

- Install insulation to manufacturer's specifications/proper density.
- Ensure that insulation has no gaps, voids, compression, or misalignment.
- Seal holes in backing material as needed.
- Fill out applicable sections of house-wide insulation certificate with coverage area, thickness, and R-value.
- Clean work area.

1. Relevant Standards: 4.0104.5, 4.0104.6