



# Single-Family Attic Insulation

## PREPARATION

- Ensure no existing roof leaks or failing roof flashing.
- Remove degradable and absorbent materials that might rot from in the attic.
- Baffles and shields should be rigid, non-combustible materials attached to framing, and extend a minimum 4 inches above new insulation, with 3 inches of clearance around non-IC fixtures, flues and chimneys.
- Vent baffle openings should be equal or greater than the soffit vents in the bays, should extend to the exterior side of the top plate and be attached to rafters.
- Install a dam around openings to maintain the insulation level to the edge of the opening.
- Install one depth ruler facing the attic entrance for every 300 square feet of attic area.
- If water pipes are not covered by at least 1 inch of attic insulation, wrap the pipes with at least one-inch-thick insulation.
- Each attic space must meet applicable local and state codes for ventilation.
- New and existing exhaust fans must be sealed and vent directly to the outdoors.
- Insulation in contact with active knob-and-tube wiring must be approved in writing by a licensed electrician.

## Specification Checklist

[Download Checklist](#)

For details on all BPA requirements for this measure, please refer to the [BPA Residential Weatherization Specifications and Best Practices Guide](#).

- Pack insulation against the eave baffle or roof deck to achieve the highest possible R-value in places where the full intended thickness of insulation won't fit.
- Install insulation to the surface between the conditioned space and attic with a uniform R-value/consistent depth. Level the insulation if necessary.
- Insulate vertical access doors to at least R-11 and horizontal access hatches to at least R-30.
- Permanently attach weatherstripping to the attic-access door or frame to create an effective air seal between the door frame and the door. Repair air leaks or replace the door prior to insulating.
- Pull-down stairs: Weatherstripped and insulated to a minimum of R-10. New assemblies include minimum R-5 and weatherstripping.
- Attic walls and knee walls: insulated to meet requirements, insulation covered with vapor permeable air barrier if attic is used for storage, access door insulated to minimum R-13 and weatherstripped. Block frame the opening between floors with an air barrier.
- All attic insulation shall meet manufacturer-specified density.

**Connect with the local serving utility to confirm pre- and post-condition requirements.**



**Pre-Condition:**  
R-0 to R-30

**Post-Condition:**  
R-38 or R-49



### MINIMUM REQUIRED DOCUMENTATION

You can use the [Optional Weatherization Data Collection Tool](#) to collect this information. Contact the serving [utility](#) for specifics on required documentation.

1. Documentation that the measure requirements have been met (e.g., manufacturer, model number, type, size and quantity of equipment or product installed or used).
2. Documentation of pre- and post-insulation R-values, and square footage of installed insulation.
3. Primary heating type.
4. Invoice showing order or purchase date, cost, post-condition.

### PAIRS WELL WITH

- Prescriptive Air Sealing.
- Prescriptive Duct Sealing.
- Floor Insulation.
- Whole-House Air Sealing

## Installation Examples



**Weatherstripped and insulated hatch.**  
*Courtesy of Advanced Energy*



**Uninsulated, not weatherstripped.**  
*Courtesy of Advanced Energy*



**Attic insulated and all prep work completed.**  
*Courtesy of U.S. Department of Energy*



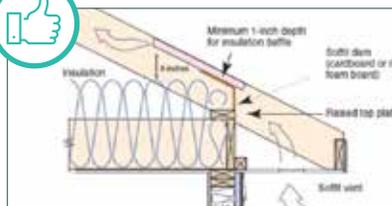
**Attic not prepped or insulated.**  
*Courtesy of U.S. Department of Energy*



**Open knee wall insulated and covered.**  
*Courtesy of Advanced Energy*



**Open knee wall uninsulated.**  
*Courtesy of Advanced Energy*



**Roof-to-wall heel insulated to at least R-13.**  
*Courtesy of U.S. Department of Energy*



**Roof-to-wall heel uninsulated.**  
*Courtesy of Advanced Energy*