Insulated Exterior Doors

QUALIFICATIONS

- The new door must be a pre-hung, ENERGY STAR-qualified door and include replacement of the threshold.
- If the door is not ENERGY STAR-certified, or the ENERGY STAR list is not accessible, utilities may comply by documenting that the door meets ENERGY STAR specifications.
- New door glazing must meet or exceed the following U-factor rating: opaque less than or equal to 0.17, ½ lite must be less than or equal to 0.25, and greater than ½ lite must be less than or equal to 0.30.
- Ensure the new door frame is square, has equal margins around the door and that the margins are insulated, sealed and caulked.
- Verify the jamb is not bowed and the door is not warped or twisted.
- Inspect and test door hardware, fasteners, strike plate and latch are flush, installed correctly, functioning and properly adjusted.
- Make sure weatherstripping is installed and sealing in the corners, corner pads are in place and that the threshold/sill is continuously bedded with caulk.

Specification Checklist

Download Checklist

Please refer to the ENERGY STAR specifications for residential doors for more details.

- [ ] All replacement hardware/fasteners: stainless steel or another corrosion-resistant material.
- [ ] Older door: carefully remove, leave housing structure and door trim undamaged, and repair or replace framing structure if rotted.
- [ ] Door sub-sill: ensure area is solid and level before installation. Use acrylic caulk, a minimum of three beads 1-inch apart along the full width of sub-sill.
- [ ] Installation: shims must be installed approximately 8 inches from top and bottom corners, at the hinges, and above and below strike plate. The door must be centered and plumb in opening with straight jambs. Screws, at least 3-inches long, should be installed through jamb, shims and into framing.
- [ ] Space between jamb and rough opening: must be filled with low-expanding foam or caulk. Backer rod should be installed in gaps larger than 3/8 inch.
- [ ] The door must be incorporated into the home's water-resistive barrier.
- [ ] Doors exposed to wind-driven rain or without overhang: Install riding-cap flashing overlapping sides of door frame.
- [ ] Doors with overhanging head flashing: new flashing must be tucked behind existing head flashing.
- [ ] Doors without overhanging metal head flashing: install new metal head flashing at top of door frame, behind existing siding and building paper.
- [ ] Metal head flashing: must be installed behind the exterior siding at least 1 inch, with a downward bending lip of at least ¼ inch on front and ends of metal head flashing.
- [ ] Exterior wood: must be caulked and primed. All filler and trim pieces must be thoroughly caulked, including brick molding, door frame, and trim on all sides and ends.
- [ ] Finished door, latch and lockset: ensure they operate smoothly. Closed door should evenly compress weatherstripping.
- [ ] Jobsite to be left clean and orderly: all scrap material, tools and equipment must be removed.

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

Pre-Condition:
Substandard exterior door, such as one that does not contain an insulating material and/or one where the weatherstripping has degraded by at least 50%.

Post-Condition:
Pre-hung, ENERGY STAR-qualified door, with a new threshold.

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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. Description of home (Single-family, Multifamily or manufactured).
3. ENERGY STAR product list showing the product, or packaging that includes the ENERGY STAR logo.
4. Documentation of the door's pre- and post-conditions.
5. Invoice showing date and cost.

PAIRS WELL WITH

- ☐ Whole-House Air Sealing.
- ☐ Prescriptive Air Sealing.
- ☐ Attic, Floor and Wall Insulation.
- ☐ Ductless or Air-Source Heat Pump.

Installation Examples

New ENERGY STAR door.

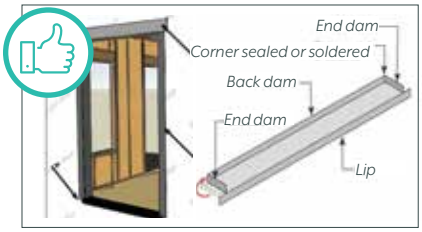
Inefficient door needs to be replaced.

Good weatherstripping.
Courtesy of U.S. Department of Energy

Bad air leaks around door. Light is visible in the cracks.
Courtesy of U.S. Department of Energy

Closed-cell foam seals the gap.
Courtesy of U.S. Department of Energy

Loose-fill insulation allows moisture and air infiltration.
Courtesy of U.S. Department of Energy



Properly sealed and flashed doors prevent water damage.
Courtesy of U.S. Department of Energy

Improperly flashed door has structural damage due to water penetration.
Courtesy of U.S. Department of Energy