Nashville Area Habitat for Humanity®

Supervisor on Site
Web-based Training

Insulation

Overview: Insulation is done on the third day of construction after roof is installed and rough-in wiring and plumbing is complete. Proper installation is necessary to achieve energy efficiency. The task usually requires 8-10 people working as a team to accomplish.

Safety tips: Wear dust masks to avoid inhaling insulation. Wear gloves to prevent contact with skin. Exercise ladder safety. Exercise razor knife safety—retract razor blade when not in use.

Tools:

As needed	brooms, dust pan, vacuum
1 pair	sawhorses and 4x8 sheet of plywood
1 each	straight 2x4 as a straight edge
2-4 each	stepstools or 6 foot stepladders
4-6 each	caulk guns
4-6 each	razor knives
4-6 each	staple guns/hammer tackers

Materials:

Insulation batts

Caulk

Expanding insulation foam

Instructions:

Step 1: Sweep out/vacuum all debris from wall cavities and along bottom of exterior walls. Trim off excess sill sealer (blue foam) from bottom of exterior walls.

Step 2: On exterior walls only, neatly caulk along bottom edge of wall, between two horizontal plates at top of wall, along vertical seams where wall sections meet (look for breaks in wall plate and double studs), and between the double studs at windows and doors.

Step 3: Using caulk, seal all areas (on both interior and exterior walls) where wires and plumbing run through top of wall into attic space. Seal around all electrical boxes and pipes that penetrate exterior walls using caulk or expanding foam as needed.

Step 4: Starting with full width cavities (typically 22 ½ inches wide), place insulation batts in exterior cavities with paper side facing the interior of house. Staple side flaps of insulation batt to edge of studs, making sure insulation is snug at top and bottom of wall.

Step 5: Set up a cut table in living room, using sawhorse and plywood sheet, to make cuts for narrower cavities. Cut insulation @ 1 ½ inches wider than cavities to insure snug fit and enough paper overlap to staple to studs.

Step 6: Insulation must be cut where there are wires, electrical boxes, or plumbing. Keep in mind that insulation loses its insulating value as it is compressed. It is better to remove some insulation than it is to compress the insulation. For wires, simply cut a slit in the pink insulation, taking care not to cut the paper, and fold around the wires. The procedure for plumbing pipes is similar to electrical wires except that some insulation must be removed to account for the size of the pipe. For electrical boxes, carefully trim paper around box, remove some of the pink insulation equal to the box depth and insure remaining insulation is between box and exterior wall.

Step 7: Seal around all door and windows with expanding foam or insulation scraps as necessary. Be careful not to force insulation into gaps. Check all windows and doors for smooth operation at end of day.