How to insulate your attic

Pro tips from Efficiency Vermont

Most homes in Vermont can benefit from more insulation and proper air sealing. You can save an average of $375 a year by properly air sealing and insulating your home. You’ll also stay more comfortable, year-round.

Important Considerations:

- The attic must be accessible and easy to move around in—be careful where you walk!
- Use proper safety equipment (dust masks, gloves, long sleeves, safety glasses, lights).
- Attics can get dangerously hot on sunny days, especially in the summer. Make sure there is a friend or family member that can help if needed.
- Call a professional if you see any of these:
  - Damp conditions indicating a moisture source or ventilation problem
  - Old (knob and tube) or faulty unprotected wiring
  - Vermiculite insulation—usually appears as gray, silvery chips

First Things First: Air Sealing

Air comes in through leaks in the basement, gets sucked up through the house, and leaks out through the attic. This is called the “stack effect.” Plug those attic leaks and you’ll slow the air flow considerably—reducing drafts, saving energy, and allowing your insulation layer to work more effectively.

**STEP 1:**

Finding leak points:
- Map the top floor of your home so you know where all the interior walls, lights, and irregularities are while you are in the attic working
- Lift up areas of existing insulation
- Discoloration, visible cracks, and open seams indicate leaking air

**STEP 2:**

Seal the big holes:
- The attic access
- Areas where you can reach from the attic into interior wall cavities
- Plumbing chases or dropped ceilings
- Around the chimney

**STEP 3:**

Seal the little holes:
- Electric and plumbing penetrations
- Sheetrock joints at top plates

Materials checklist:
- Silicone, acrylic latex caulk and/or low expanding foam for air sealing
- High-temperature (heat-resistant) caulk for sealing around flues and chimneys
- Foam board insulation to cover soffits, open walls, and larger holes. Alternatively, you can use drywall or pieces of plywood.
- Roll of 14” aluminum flashing to keep insulation away from the flue pipe
- Weather-stripping for attic hatch
Next: Install the insulation

Need help?
View how-to videos at www.efficiencyvermont.com/DIY
Contact our help line for trouble-shooting support at 888-921-5990

STEP 4:
Now that you’ve sealed up air leaks, check your insulation levels and add more if necessary.

R-49 is the minimum level of insulation the Vermont Energy Code calls for, and can be achieved with a variety of materials.

<table>
<thead>
<tr>
<th>Type of insulation</th>
<th>Material</th>
<th>Depth (in inches)</th>
<th>Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll-out batt</td>
<td>Rock Wool (R-4.2/in)</td>
<td>Fill to 12-14&quot;</td>
<td>Install to fit neatly around irregularities, avoid compression, and overlay 2 layers across one another.</td>
</tr>
<tr>
<td></td>
<td>Fiberglass (R-3.5/in)</td>
<td>Fill to 14-16&quot;</td>
<td></td>
</tr>
<tr>
<td>Blown-in</td>
<td>Cellulose (R-3.7/in)</td>
<td>Fill to 13-15&quot;</td>
<td>Install measuring sticks at various locations to ensure even spread. A special machine is required to break down the insulation and blow it into your space.</td>
</tr>
<tr>
<td></td>
<td>Fiberglass (R-2.8/in)</td>
<td>Fill to 18-20&quot;</td>
<td></td>
</tr>
</tbody>
</table>

While some work can be done on your own, we recommend working with a Building Performance Institute (BPI) contractor to air seal and insulate your entire home and reduce your bills as much as possible. They can also account for air quality and address other safety concerns.

To find a qualified contractor near you, visit www.efficiencyvermont.com/contractors

As the state’s energy efficiency resource, we partner with Vermont residents to help them save energy and money at home. For more information call us at 888-921-5990 or visit www.efficiencyvermont.com