



Success with the 2015 Virginia Construction Code  
*Tech Tips for Builders*

# INSULATION



viridiant



**SEEA**  
SOUTHEAST ENERGY EFFICIENCY ALLIANCE



# TECH TIPS: INSULATION

1. For vented attics, install wind baffles on top of all exterior walls, leaving room for at least 4 inches of insulation over top plates and ventilation above.



## 2. Install insulation to meet the Virginia R-value requirements<sup>a</sup>. Insulation shall be installed in accordance with the manufacturer's instructions.

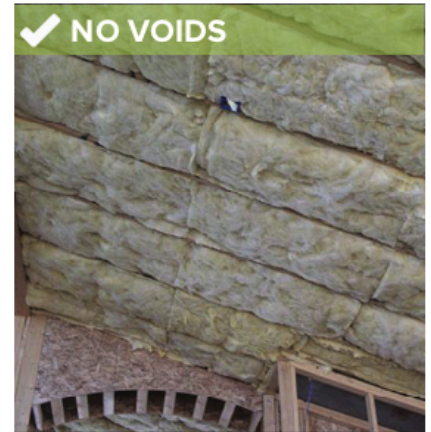
Climate Zone	Ceiling <sup>b</sup>	Frame Wall <sup>c</sup>	Slab	Basement/ Crawl Walls <sup>d,e</sup>	Mass Wall <sup>f</sup>	Floor <sup>g</sup>
Zone 4	R-38	R-15 or 13+1	R-10, 2 ft	R-10/13	R-8/13	R-19

- R-values are minimums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value shall not be less than the R-value specified in the table.
- For air-permeable insulation in vented attics, a baffle shall be installed adjacent to the soffit and eave vents. The baffle shall maintain an opening equal or greater than the size of the vent and extend over the top of the attic insulation.
- R-values noted are for wood framed walls. R-13 cavity + R-1 insulated sheathing or R-15 cavity will meet the requirement. For kneewalls, the attic side shall have a sealed air barrier.
- R-10 is continuous and R-13 is cavity.
- Basement walls shall be insulated from the top of the basement wall down to 10 feet below grade or the basement floor, whichever is less.
- The second R-value applies when more than half the insulation is on the interior side of the mass wall.
- Floor insulation shall be installed to maintain continuous permanent contact with the underside of the subfloor decking, and insulation ends shall have air barriers.



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**3.** Install insulation to fill the cavity between conditioned and unconditioned space without gaps, voids, misalignments or compression.



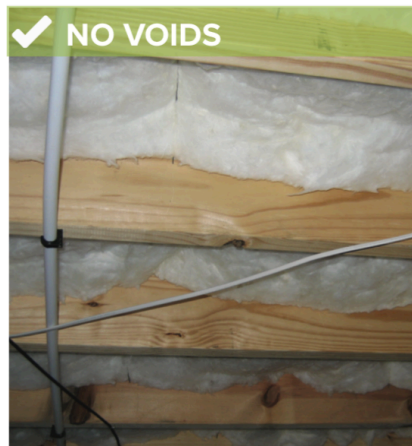
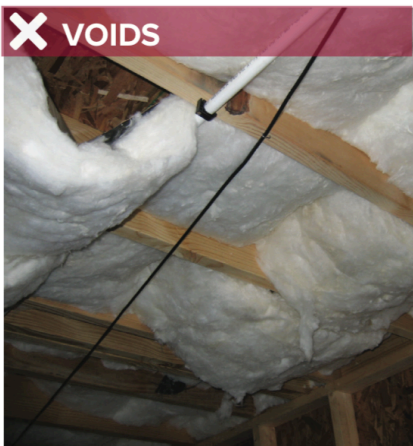


# TECH TIPS: INSULATION

4. Cut and split insulation around blocking, plumbing, HVAC and electrical components.



5. Install insulation to completely fill floor framing or to maintain permanent contact with the subfloor.





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6. For cantilever floors, frame to allow for at least R-19 and encapsulated with an exterior rigid air barrier and air sealing.

✗ NO RIGID AIR BARRIER



✓ SEALED BARRIER



7. Air seal around windows and doors using backer rod, caulk or low expansion foam.

✗ INSULATION



✓ SEAL



8. Insulate the attic access and install weather stripping around the perimeter.

✗ NO INSULATION



✓ INSULATION



✗ NO INSULATION



✓ INSULATION



9. For attics with loose fill insulation, install baffles around the attic access opening.

