

Achieving Quality Insulation Installation in NC Homes

Using manufacturer instructions and the Grade I standard

BUILDERS

There's a high probability that the insulation in your homes is *poorly installed* causing your clients *higher energy bills* and *discomfort* and may be *leading to callbacks* that *harm your reputation*.

Why are insulation installations done poorly?

Builders and code inspectors rarely demand quality installation for a variety of reasons: lack of knowledge, lack of accountability, perceived added cost and more.

What is the impact of poor insulation installation?

Moisture and mold issues, missing code requirements, losing out on utility rebates and voided manufacturer's warranties are just a few consequences. Poor installation also causes customer complaints due to comfort issues and increased energy costs.

Why consider fiberglass batt insulation?

Cost and ease of installation. Fiberglass batt insulation is one of the most affordable and easy to install methods of insulating wall and floor cavities.

What is a reasonable expectation for quality?

[RESNET's Grade I insulation installation standard](#) is equivalent to most manufacturer instructions. Grade I takes skill and most installers are not accustomed to it, but it's achievable and helps ensure quality.

- ✓ Insulation must properly fit the cavity: side to side and top to bottom, with no gaps
- ✓ Batt must be in full contact with the insulated surface with no gaps
- ✓ No gaps or spaces between different insulation types or systems
- ✓ Installed to the required density and thickness to achieve the required R-value
- ✓ The cavity must be enclosed on all six sides (top, bottom, sides, front and back)
- ✓ Closely fit insulation around obstructions like framing, blocking, wiring, pipes, etc. to avoid substantial gaps, voids or compression

How to Achieve Grade I Installation

Demand and expect Grade I insulation installation from your contractors and hold them accountable.

- ✓ **Make Grade I installation a written goal.**
 - ❑ Your insulation installation requirements should be clearly spelled out in your scope of work and contract.
 - ❑ Make it clear to the contractor that they must meet manufacturer instructions and that they will be responsible to correct installation defects.
- ✓ **Clearly communicate and educate your Superintendents and Project Managers on what your expectations are and how to identify defects.**
- ✓ **Consider hiring a HERS Rater to provide third party verification.**
 - ❑ Raters are trained on quality insulation requirements and experienced in inspecting and identifying defects.
 - ❑ The Rater will also look for proper air sealing and barrier installations.
- ✓ **Ensure that Crews have the tools and competencies to achieve goals.**
 - ❑ Instructional guides should be clearly written, use photos showing correct and incorrect installations, and be published in multiple languages as necessary.
 - ❑ Crew Leaders will need to train installation crews and make certain that they perform to expectations with support from your Superintendent and Rater.
- ✓ **Provide an internal resource for Quality Control.**
 - ❑ The Crew Leader should confirm that Grade I is delivered before marking the job as ready for third party verification.
 - ❑ If not, make sure that remediation occurs before the Crew leaves the job site.
- ✓ **Discuss your expectations with Code Officials.**
 - ❑ Code Officials can be another set of eyes to ensure quality installation occurs.

Need more information?

Visit <http://www.buildingnc.org/insulation-council> to download a full best practices guide with helpful tips, pictures and more.



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