



Setting the Standards for Home Energy Efficiency

Interpretation: Existing Wall Insulation Grade
Designation: IR 301-2019-029
Approved: December 20, 2022, by RESNET SDC 300
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Reference: Interpretation of
Standard(s): ANSI/RESNET/ICC 301-2019
Page Number(s): B14
Section(s): Wall Assembly
Table(s): Onsite Inspection Protocol
Relating to: Existing insulation in walls

Background: Provided by person requesting the interpretation.

The onsite protocol says to determine the type of insulation that is in the wall by looking around switch plates or other wall penetrations. Then determining the depth of the wall by probing or other means. Then multiplying the R value per inch by the appropriate thickness of the wall. There is no mention of what grade to assign this insulation.



Interpretation: *Provided by person requesting the interpretation.*

Logic would tell me that assemblies assessed in this manner should earn Grade 3.

Question: Is this Interpretation correct?

SDC Answer: Yes

SDC Comment:

The SDC agrees with the interpretation that the procedure described by ANSI 301 in the On-site Inspection protocol as referenced by Mr. Graham is a means to quantify the base R-value of insulation material that is located behind drywall that a Rater was not able to fully inspect at the time of installation. Once the base R-value has been determined the insulation installation is graded and modeled with the associated insulation Grade.

Section 4.2.2.2.1 of ANSI 301-2019 states that, when insulation is "... confirmed to be present but not fully inspected, "it" shall be modeled as Grade 3 ..."Therefore insulation that is assessed using a probing methodology to determine material type and R-value and which was not able to be fully inspected after initial installation will always be modeled as a Grade 3.

The inspection technique has primarily been described in ANSI 301-2019 to address the assessment of insulation in wall and other assemblies of existing homes that are being rated to determine a HERS energy rating index score.

The same language is used in ANSI301-2022.

Reference sections of ANSI 301-2019 used in this interpretation.

The section of the ANSI 301 reference above is located in the On-site inspection protocol and reproduced below.

Existing insulation in walls	Determine and record if wall insulation exists in existing Dwelling Unit.	Check at plumbing outlet under sink or in order of preference, remove cable outlet plate, telephone plate, electrical switch plates or electrical outlet plates on exterior walls. Probe the cavity around the exposed plate with a nonmetal device. Determine and record type of insulation. Inspect outlets/switch plates
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		<p>on each side of the Dwelling Unit to verify that all walls are insulated.</p> <p>Multiply the wall framing member size in inches by the R-Value per inch. Use 3.5" for 2x4 walls and 5.5" for 2x6 walls constructed after 1945.</p> <p>When an addition has been added, check the walls of the addition separately. Where the Dwelling Unit has one more than one story, check each floor.</p>
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4.2.2.2.1. The insulation of the Energy Rating Reference Home enclosure elements shall be modeled as Grade I. The insulation of the Rated Home shall either be inspected according to procedures equivalent to Normative Appendix A or, **if confirmed to be present but not fully inspected, shall be modeled as Grade III and shall be recorded as “not inspected” in the rating.**