

Giving Credit to Quality Insulation Installation

#### Mark Jansen & Kelly Parker, P.E. March 1, 2005



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# Not Inspected...

Default values for insulation that is not inspected according to Procedures in Appendix A shall be modeled according to the requirements of Grade III under 3.B.5.m, and shall be recorded "not inspected" in the rating information.

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### Insulation R-Values...

# ...*may not be averaged* according to coverage area.

\*For example, if 50 square feet of a wall area has no cavity fill insulation at all, that 50 square feet must be recorded as a separate wall area with no cavity insulation. Network

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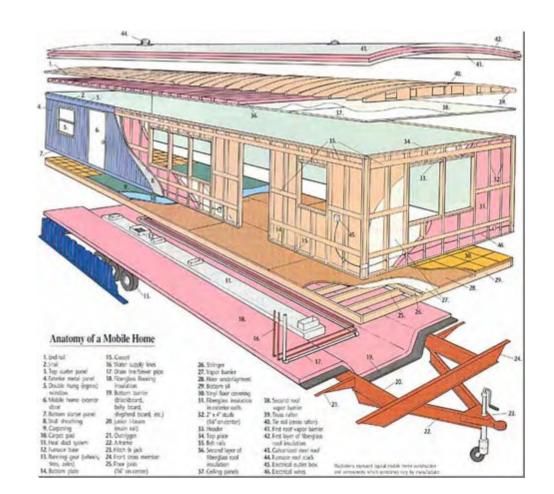
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#### **Exceptions:**

1. Modular and manufactured housing using **IPIA** (In-Plant Inspection Agent) may be substituted for a **HERS** inspection.



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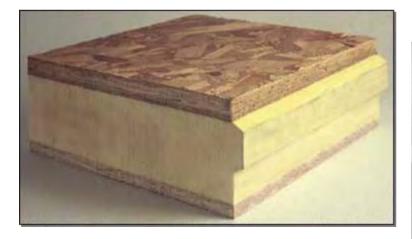
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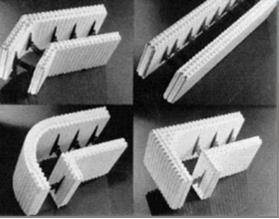


#### Exceptions:

2. Structural Insulated Panels (SIP's) and Insulated Concrete Forms (ICF's) and other similar manufactured assemblies









#### Exceptions: 3. A RESNET – approved, third-party audited installer certification program

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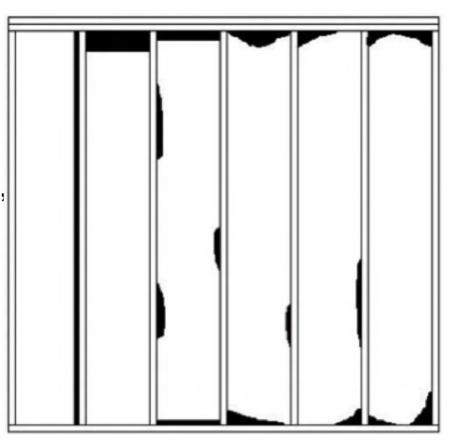
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# Grade III...

Shall be used to describe an installation with substantial gaps and voids, with missing insulation amounting to greater than 2% of the area, but less than 5% of the surface area it is intended to occupy.



\* This includes insulation that is not in substantial contact with sheathing on at least one side of the cavity or insulation in a wall that is open (unsheathed) on one side, and exposed to the exterior.



#### Grade III...





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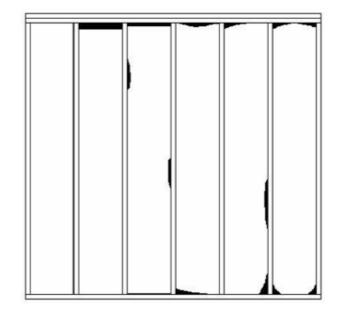
# Grade II...

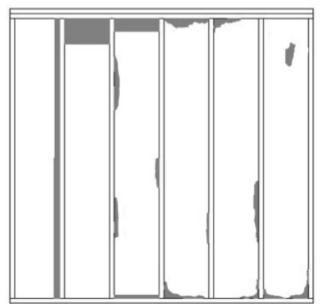
Shall be used to describe an installation with moderate to frequent installation defects: gaps around wiring, electrical outlets, plumbing and other intrusions; rounded edges or "shoulders"; or incomplete fill amounting to 10% or more of the area, with *less than 70%* of the

intended thickness.

\*Wall insulation must be enclosed on all six sides, and must be in substantial contact with the sheathing material on at least one side (interior or exterior) of the cavity.

Gray areas illustrate compression





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## Grade II...

Shall be used to describe an installation with moderate to frequent installation defects: gaps around wiring, electrical outlets, plumbing and other intrusions; rounded edges or "shoulders"; or incomplete fill amounting to 10% or more of the area, with less than 70% of the intended thickness.



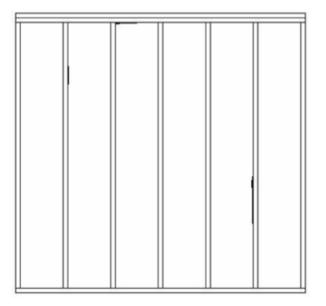
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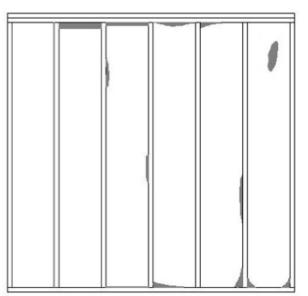


### Grade I...

Shall be used to describe an installation that is generally installed according to manufacturer's instructions and/or industry standards. A Grade I installation requires that the insulation material uniformly fills each cavity side-to-side and top-to-bottom, *without substantial gaps or voids*.

\*Wall insulation must be enclosed on all six sides, and must be in substantial contact with the sheathing material on at least one side (interior or exterior) of the cavity.





Gray areas illustrate compression

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#### Grade I...

Shall be used to describe an installation that is generally installed according to manufacturer's instructions and/or industry standards. A Grade I installation requires that the insulation material uniformly fills each cavity side-to-side and top-to-bottom, without substantial gaps or voids.



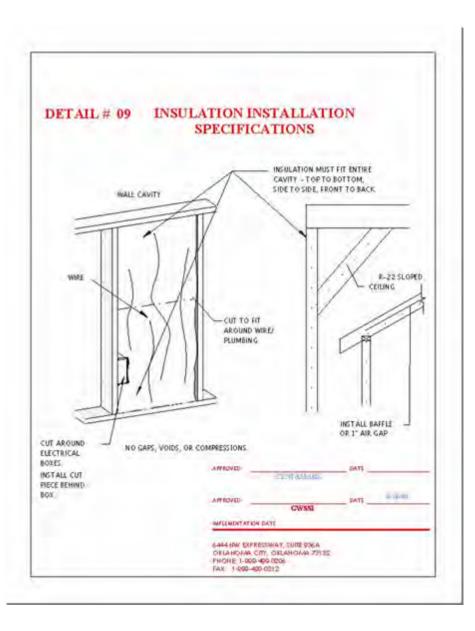
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#### Grade I...

#### Detail of Grade I Installation...





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#### Loose Fill...

For loose fill applications, be sure to get four (4) readings which accurately reflect the insulation level.





Questions?

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