

This addresses the Metal Building Laminator Committee's stance regarding the type of insulation used for filling cavities in liner systems.

Taken directly from the (NIA) National Insulation Association's website:

<https://insulation.org/about-insulation/metalbuildinginsulation/metal-building-resources/>

ASHRAE 90.1-2016 Reference for Metal Building Insulation Best Practices

The following text specifies the recommendations of NIA's Metal Building Laminators Committee in regard to the fiber glass insulation referenced in ASHRAE Standard 90.1-2016.

This is intended to provide clarification relating to the fiber glass insulation referenced in ASHRAE Standard 90.1-2016 ([Energy Standard for Buildings Except Low-Rise Residential Buildings](#)) for metal building roofs and walls. The assembly descriptions detailed in the Appendix A reference tables and the prescriptive options shown in Tables 5.5-0 through 5.5-8 should have specified the use of NAIMA 202-compliant fiber glass, which we believe to be a significant oversight.

Filled cavity systems, either Long-Tab Banded or Liner, are quickly becoming a necessity to meet current more stringent energy codes, and the use of NAIMA 202-compliant insulation in these systems is necessary to meet the prescriptive U Factors or "in-place" R-Values shown in the 90.1 Standard.

The reason for this is quite simple. Hot Box test reports submitted to ASHRAE for these filled cavity systems were based upon the use of high density NAIMA 202-compliant material.

The cavity within a metal building roof or wall system is limited by the depth of the secondary framing member (purlins or girts). Consequently, it was determined to use NAIMA 202-compliant fiber glass in a "filler" application. NAIMA 202-compliant certified fiber glass has a lower K-Value than non-202-compliant material. Said differently, when not laminated, NAIMA 202-compliant fiber glass yields an advantage in performance compared to non-202-compliant fiber glass. As such, the use of non-202-compliant fiber glass ("filler") will yield lower thermal performance than a comparable assembly insulated with NAIMA 202-compliant fiber glass.

In summary, for metal building projects subject to the energy conservation requirements of ASHRAE 90.1, all layers of insulation installed need to be compliant to NAIMA Standard 202-96. Rev. 2000, whose properties are summarized in Table A9.4.6.1 of this ASHRAE Standard.