

## METAL BUILDING CONSTRUCTION & ENERGY CODE COMPLIANCE

This document has been prepared to address questions related to metal building energy code compliance. Silvercote does not make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this information. Building code regulations vary from area to area and some municipalities may be more stringent than the state wide requirements. Each customer should consult local building and safety codes for specific requirements. Final responsibility for code compliance is that of the professionals who design and construct buildings.

**Question:** How do I find out which energy code prevails in the state where my project is located?

**Answer:** Go to [www.energycodes.gov](http://www.energycodes.gov) to select the state where the project is located.

**Question:** How many Energy Codes are in effect in the U.S.?

**Answer:** ASHRAE 90.1 is well known and there are currently three versions in effect in various states. They are versions 2004, 2007 and 2010. There are a number of IECC standard in effect. They are versions 2006, 2009, 2012, 2015 and 2018. Several states (NC, NY, OR, VT and WA) have adopted their own code (although they generally make reference to one of the ASHRAE or IECC standard).

**Question:** I am attempting to comply with a local code and know that I must do so by providing an insulation product or system that has a certain R-value or U-factor. Do I have any options relative to the product I provide?

**Answer:** You can meet the code by providing the insulation assembly prescribed in the code (thickness, system type, configuration) or one which meets the prescribed u-value. Most states also allow the use of COMCheck to demonstrate compliance via tradeoff method by entering the known u-value of properly tested assemblies. COMCheck allows you to combine different roof and wall assemblies than what is prescribed to meet the code when more cost effective methods or building constraints are present. When using tradeoff or meeting prescribed u-values you must demonstrate compliance with proper supporting documentations (valid test reports).

**Question:** I hear the name COMcheck; what is that?

**Answer:** COMcheck is a widely accepted energy code compliance analysis software tool. The user can enter basic information relative to the building envelope for the roof and wall assemblies; including insulation, doors, windows and a wide variety of other miscellaneous construction details and overall building use. This tool allows you to print a report that demonstrates whether or not your selections pass or fail the current requirements. COMcheck can currently be used to demonstrate compliance in approximately 40 states with and additional 7 more where it is applicable by county/jurisdiction.

**Question:** Do I have to purchase COMcheck?

**Answer:** COMcheck can be downloaded from the [www.energycodes.gov/comcheck](http://www.energycodes.gov/comcheck) website for free. A web version of this software can be launched directly from the same website at no charge as well.

**Question:** What is "Continuous Insulation"?

**Answer:** This text comes directly from Comcheck's help file: "Continuous insulation is insulation that runs continuously over structural members and is free of significant thermal bridging; one example is rigid foam insulation above the roof deck. All R-values should be rated R-values for insulation materials." Faced blanket insulation installed over the purlins is not considered to be "continuous" due to the fact that it is compressed at the purlins and girts.

**Question:** If the applicable energy code lists "c.i." (continuous insulation), must I enter that type of insulation, or can I comply in some other way?

**Answer:** You have alternatives. Continuous insulation would be the prescriptive approach to compliance. As mentioned before, you can demonstrate compliance by entering a known assembly R-value or U-factor. At this time, in every state where COMCheck can be used to demonstrate compliance, you can do so with alternative insulation systems. Contact your Silvercote sales representative for details on several Silvercote products that can be used instead.

**Question:** Has Silvercote tested any High R-value systems in a Guarded Hot Box?

**Answer:** Yes, we have tested the thermal performance of several high R-value Silvercote systems including the Energy Saver FP™ System (called "liner system" by ASHRAE) and of our Banding System (called "Filled Cavity" by ASHRAE). Our test reports are available upon request.

**Question:** Has Silvercote compiled data from various states? Is that available?

**Answer:** Yes, this information is available upon request.

**PLEASE CONTACT YOUR SILVERCOTE SALES REPRESENTATIVE  
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