

**NC Department of Insurance  
Office of the State Fire Marshal - Engineering Division  
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**Concrete Masonry Unit Cores Filled with Integral Insulation**

**Code:** 2012 NC Residential Code

**Date:** 07/18/2014

**Section:** 2012 NC Residential Code Sections N1101.2, N1102.1.2, N1102.1.3

**Question:**

Does the 2012 NC Residential Code allow crediting of the thermal performance of concrete masonry unit (CMU) cores filled with integral insulation when determining compliance with the 2012 NC Residential Code energy conservation provisions?

**Answer:**

Yes, the 2012 NC Residential Code does allow the crediting of the thermal performance of concrete masonry unit (CMU) cores filled with integral insulation when determining compliance with the 2012 NC Residential Code energy conservation provisions.

The 2012 NC Residential Conservation Code allows the contribution of the thermal insulating performance of concrete masonry unit (CMU) cores filled with integral insulation to be considered when determining energy conservation code compliance for residential building wall assemblies. This is allowed for the prescriptive method when determining code compliance using the "U-factor alternative" per section N1102.1.2 or the "Total UA alternative" per section N1102.1.3. Also, the NC REScheck compliance program referenced in section N1101.2 also provides a path to compliance with the 2012 NC Residential Code. The NC REScheck allows selection from among several CMU wall construction assemblies, including CMU cores filled with integral insulation. An option is also available in REScheck for entering calculated U-values for a CMU wall assembly with insulated cores. Any of these methods are acceptable.

**Keywords:**