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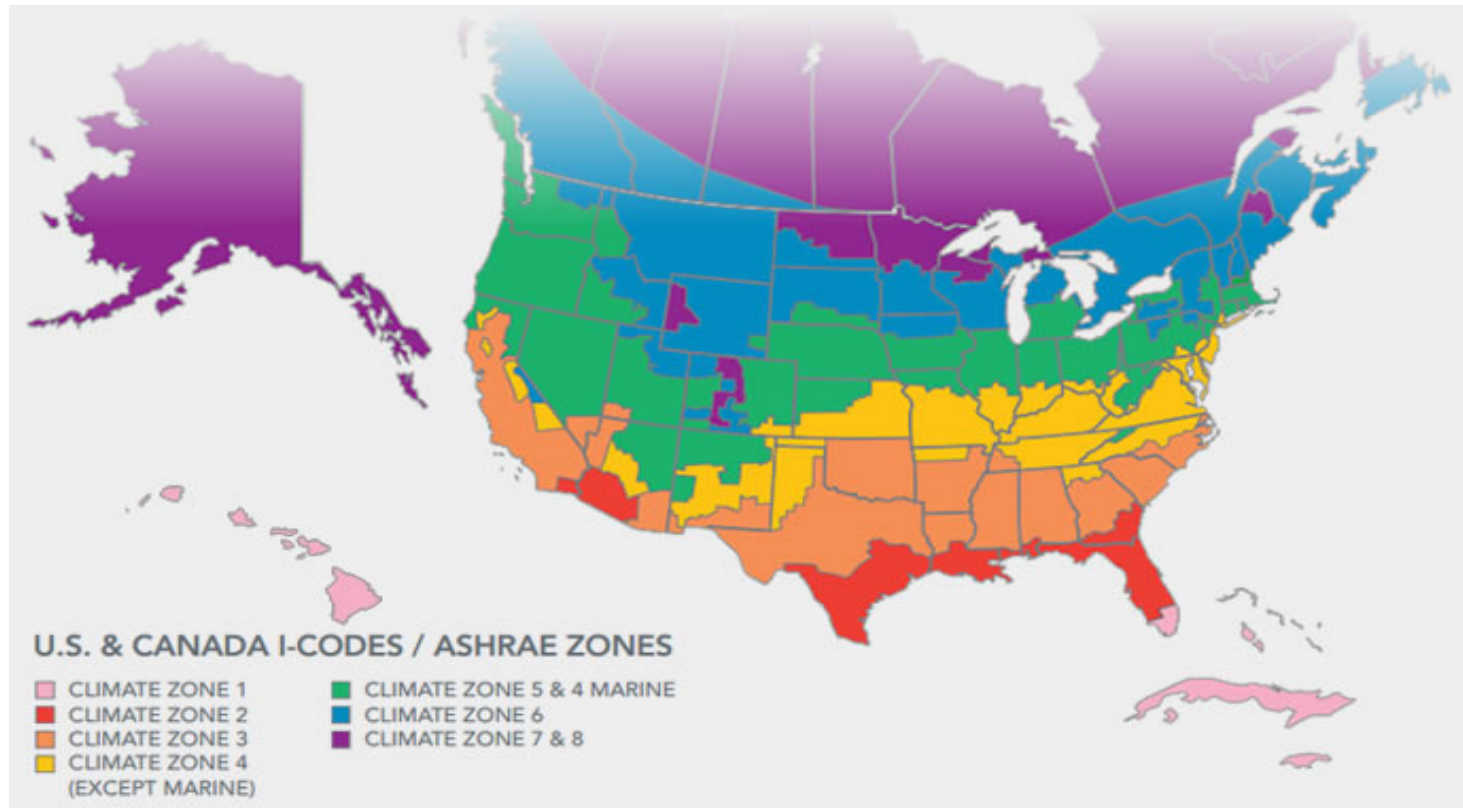
## Technical Bulletin 2014

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MW# 177-040114

Topic: Continuous Insulation



ASHRAE and the IECC have developed the climate map above to assist designers in the selection of appropriate continuous insulation systems for various climates. Direct links are also provided to the specific ASHRAE and IECC documents along with ResCheck and



[Link to ComCheck](#)



[Link to ResCheck](#)

[Link to ASHRAE 90.1-2010](#)

[Link to IECC 2012](#)



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**Topic: Continuous Insulation**

Prescriptive requirements prescribe a certain assembly and installation method. It's quick and easy to do but doesn't offer much flexibility for wall assemblies.

**PRESCRIPTIVE INSULATION REQUIREMENTS WALL ASSEMBLIES FOR NON-RESIDENTIAL STRUCTURES**

Energy Code	Calculation	Building Type		Zone 1	Zone 2	Zone 3	Zone 4 except Marine	Zone 5 and Marine 4	Zone 6	Zone 7	Zone 8
ASHRAE 90.1-2010	Prescriptive	Commercial	Steel Frame	R-13	R-13	R-13 + 3.8 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci
2012 IECC	Prescriptive	Commercial	Steel Frame	R-13 + 5.0 ci	R-13 + 5.0 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci
ASHRAE 90.1-2010	Prescriptive	Commercial Group R	Steel Frame	R-13	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 15.6 ci	R-13 + 18.8 ci
2012 IECC	Prescriptive	Commercial Group R	Steel Frame	R-13 + 5.0 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 15.6 ci	R-13 + 17.5 ci
ASHRAE 90.1-2010	Prescriptive	Commercial	Wood Frame	R-13	R-13	R-13	R-13	R-13 + 3.8 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 15.6 ci
2012 IECC	Prescriptive	Commercial	Wood Frame	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 7.5 ci or R-20 + 3.8 ci	R-13 + 7.5 ci or R-20 + 3.8 ci	R-13 + 15.6 ci or R-20 + 10.0 ci
ASHRAE 90.1-2010	Prescriptive	Commercial Group R	Wood Frame	R-13	R-13	R-13	R-13 + 3.8 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 7.5 ci	R-13 + 15.6 ci
2012 IECC	Prescriptive	Commercial Group R	Wood Frame	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 3.8 ci or R-20	R-13 + 7.5 ci or R-20 + 3.8 ci	R-13 + 7.5 ci or R-20 + 3.8 ci	R-13 + 7.5 ci or R-20 + 3.8 ci	R-13 + 15.6 ci or R-20 + 10.0 ci
ASHRAE 90.1-2010	Prescriptive	Commercial	Mass Wall	NR	R-5.7	R-7.6	R-9.5	R-11.4	R-13.3	R-15.2	R-25
2012 IECC	Prescriptive	Commercial	Mass Wall	R-5.7	R-5.7	R-7.6	R-9.5	R-11.4	R-13.3	R-15.2	R-25

Air Barrier  
Required

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Performance requirements state a total U-value requirement rather than a prescribed assembly. Values are calculated.

### PERFORMANCE INSULATION REQUIREMENTS WALL ASSEMBLIES FOR NON-RESIDENTIAL STRUCTURES

Energy Code	Calculation	Building Type		Zone 1	Zone 2	Zone 3	Zone 4 except Marine	Zone 5 and Marine 4	Zone 6	Zone 7	Zone 8
ASHRAE 90.1-2010	Performance	Commercial	Steel Frame	U-0.124	U-0.124	U-0.084	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064
2012 IECC	Performance	Commercial	Steel Frame	U-0.077	U-0.077	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.045
ASHRAE 90.1-2010	Performance	Commercial Group R	Steel Frame	U-0.124	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.042	U-0.037
2012 IECC	Performance	Commercial Group R	Steel Frame	U-0.077	U-0.064	U-0.064	U-0.064	U-0.064	U-0.057	U-0.052	U-0.045
ASHRAE 90.1-2010	Performance	Commercial	Wood Frame	U-0.089	U-0.089	U-0.089	U-0.089	U-0.064	U-0.051	U-0.051	U-0.036
2012 IECC	Performance	Commercial	Wood Frame	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.051	U-0.051	U-0.036
ASHRAE 90.1-2010	Performance	Commercial Group R	Wood Frame	U-0.089	U-0.089	U-0.089	U-0.064	U-0.051	U-0.051	U-0.051	U-0.036
2012 IECC	Performance	Commercial Group R	Wood Frame	U-0.064	U-0.064	U-0.064	U-0.064	U-0.064	U-0.051	U-0.051	U-0.036
ASHRAE 90.1-2010	Performance	Commercial	Mass Wall	U-0.580	U-0.151	U-0.123	U-0.104	U-0.090	U-0.080	U-0.071	U-0.071
2012 IECC	Performance	Commercial	Mass Wall	U-0.142	U-0.142	U-0.110	U-0.104	U-0.078	U-0.078	U-0.061	U-0.061

Air Barrier  
Required

#### Disclaimer

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