

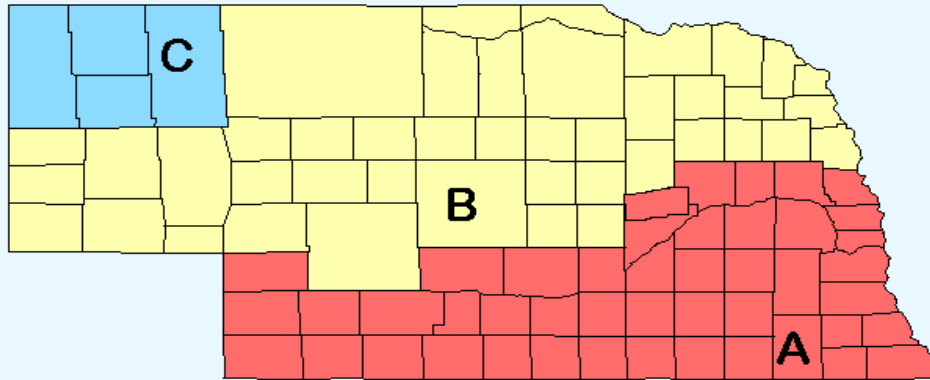
# IECC Compliance Guide for New Homes in Nebraska

Code: 2003 International Energy Conservation Code (IECC)

First Edition

## How to Use This Guide

This pamphlet contains three generic packages designed to simplify compliance with the IECC as it relates to residential occupancies in Nebraska. Each county is assigned to one of the three packages (A through C), which vary according to the different climate zones in Nebraska.



## Step-by-Step Instructions

1. Use the color-coded map to locate the county in which construction is taking place and find the package, A through C, associated with that county.
2. Use the "Table of IECC Building Envelope Requirements for Nebraska" (on the back of this sheet) to find the set of construction options or "path" associated with the package selected above.
3. Construct the building according to the corresponding path and comply with certain basic code requirements, which include:
  - a. providing preventative maintenance manuals
  - b. installing temperature controls
  - c. limiting window and door leakage
  - d. caulking or sealing joints and penetrations
  - e. installing vapor retarders
  - f. sealing and insulating ducts

### Example:

*If you are constructing a home in Douglas County, you will comply with the IECC in Nebraska if you follow the path listed in Package A.*

### Obtaining the IECC

The IECC is the national model energy standard certified by the US Department of Energy pursuant to the Energy Policy Act (EPAAct). EPAAct requires that all states review and consider adopting the IECC as the state building energy code.

The IECC is published by the International Code Council (ICC). For additional details on the IECC, contact the ICC by phone at (703) 931-4533 or visit their website at [www.iccsafe.org](http://www.iccsafe.org).

### Limitations

This guide is an energy code (IECC based) compliance aid for Nebraska. It does not provide a guarantee for meeting the IECC. The guide has not been customized to reflect any state-specific amendments to the IECC that Nebraska may adopt or has adopted, and does not, therefore, provide a guarantee for meeting the state energy code. For additional details on Nebraska's energy code, please contact your local building code official.

## Nebraska Counties by Package

A 6,000 - 6,499 HDD		
Adams	Gosper	Perkins
Buffalo	Hall	Phelps
Butler	Hamilton	Platte
Cass	Harlan	Polk
Chase	Hayes	Red Willow
Clay	Hitchcock	Richardson
Colfax	Jefferson	Saline
Dawson	Johnson	Sarpy
Dodge	Kearney	Saunders
Douglas	Lancaster	Seward
Dundy	Merrick	Thayer
Fillmore	Nance	Washington
Franklin	Nemaha	Webster
Frontier	Nuckolls	York
Furnas	Otoe	
Gage	Pawnee	

B 6,500 - 6,999 HDD		
Antelope	Dixon	Madison
Arthur	Garden	McPherson
Banner	Garfield	Morrill
Blaine	Grant	Pierce
Boone	Greeley	Rock
Boyd	Holt	Scotts Bluff
Brown	Hooker	Sherman
Burt	Howard	Stanton
Cedar	Keith	Thomas
Cherry	Keya Paha	Thurston
Cheyenne	Kimball	Valley
Cuming	Knox	Wayne
Custer	Lincoln	Wheeler
Dakota	Logan	
Deuel	Loup	

C 7,000 - 8,499 HDD		
Box Butte	Sheridan	Sioux
Dawes		

HDD = Heating Degree Days

# Table of IECC Building Envelope Requirements for Nebraska

## Simplified Prescriptive Paths for Compliance with the IECC in Nebraska

### WINDOWS AND INSULATION

### FOUNDATION TYPE

Package		Window U-factor	Ceiling	Wall	Floor	Basement Wall	Slab Perimeter	Crawl Space Wall
<b>A</b>	6,000 - 6,499 HDD	0.35	R-38	R-18	R-21	R-10	R-9, 4 ft.	R-20
<b>B</b>	6,500 - 6,999 HDD	0.35	R-49	R-21	R-21	R-11	R-11, 4 ft.	R-20
<b>C</b>	7,000 - 8,499 HDD	0.35	R-49	R-21	R-21	R-11	R-13, 4 ft.	R-20

\* This table of prescriptive requirements is applicable to homes in which the ratio of the rough opening of windows to the gross wall area, expressed as a percentage, is 15%. For homes with glazing areas that are greater than 15%, please refer to Tables 502.2.4(4) - (6) in the IECC.

HDD = Heating Degree Days

### NOTES:

1. This table is based upon the 2003 International Energy Conservation Code (IECC), published by the International Code Council, and does not reflect any state-specific amendments to the IECC.
2. Source of requirements for the Table: 2003 IECC, Ch. 5, Prescriptive Packages for Climate Zones 13-15. Alternate compliance approaches must be used for glazing areas over 25%.
3. Window area % and U-factors are maximum acceptable levels.
4. Insulation R-values are minimum acceptable levels.
5. This table applies to single-family, wood-frame residential construction. For steel-framed wall construction or high-mass wall construction refer to Chapter 5 of the IECC.
6. "Window" refers to any translucent or transparent material (i.e., glazing) in exterior openings of buildings, including skylights, sliding glass doors, the glass areas of opaque doors, and glass block, along with the accompanying sashes, frames, etc.
7. Window U-factor must be determined from a National Fenestration Rating Council (NFRC) label on the product or from a limited table of product "default" values in the IECC.
8. Window area % is the ratio of the rough opening of windows to the gross wall area, expressed as a percentage.
9. Opaque doors must have a maximum U-factor of 0.35. One exempt door allowed.
10. The code requires that windows be labeled in a manner to determine that they meet the IECC's air infiltration requirements; specifically, equal to or better than 0.30 cfm per square foot of window area (swinging doors below 0.50 cfm) as determined in accordance with AAMA/WDMA 101/I.S.2 (ASTM E 283).
11. R-2 shall be added to the requirements for heated slabs.
12. Floors over outside air must meet ceiling requirements.
13. R-values for walls represent the sum of cavity insulation plus insulated sheathing, if any. Crawl space wall R-value shall only apply to unventilated crawl spaces.
14. Prescriptive packages are based upon normal HVAC equipment efficiencies (see Chapter 5 of the IECC). The code also requires the HVAC system to be properly sized using a computational procedure like ACCA Manual J.