North Dakota has adopted the 2021 International Energy Conservation Code (IECC). Although adoption for enforcement purposes is a local decision in North Dakota, approximately 90% of the local jurisdictions adopt the State code. The 2021 IECC is effective January 1, 2023 and available for local adoption. The IECC’s minimum insulation requirements apply both to new construction and roof replacements on existing buildings. Information on state-specific amendments and the status of local adoption is available from the North Dakota Division of Community Services here.

Minimum R-value Requirements for Insulation Entirely Above the Roof Deck

North Dakota has adopted the 2021 International Energy Conservation Code (IECC). Although adoption for enforcement purposes is a local decision in North Dakota, approximately 90% of the local jurisdictions adopt the State code. The 2021 IECC is effective January 1, 2023 and available for local adoption. The IECC’s minimum insulation requirements apply both to new construction and roof replacements on existing buildings. Information on state-specific amendments and the status of local adoption is available from the North Dakota Division of Community Services here.

Minimum R-values:
- Climate Zone 7: R-35ci
- Climate Zone 6: R-30ci

Notes
- **About R-value**: R-value is a measurement of a material’s ability to resist heat flow. The higher the R-value, the greater the insulating power. Installers should consult data sheets provided by polyiso manufacturers for information on product-specific R-values.

- **Code Compliance**: The International Energy Conservation Code recognizes ASHRAE 90.1 as an alternate compliance option for both new construction and existing buildings.

Resources
- Polyisocyanurate Insulation Manufacturers Association
- U.S. Department of Energy
Option #1 - R-30ci Roof Assembly

- Roof Membrane
- 2.6” Polyiso Boards
- Structural Roof Deck

Two layers of 2.6” polyiso | R-30

Option #2 - R-30ci Roof Assembly

- Roof Membrane
- 0.5” HD Polyiso Cover Board
- 2.4” Polyiso Boards
- Structural Roof Deck

Two layers of 2.4” polyiso | R-276
0.5” HD polyiso cover board | R-2.5
Total | R-30.1

Option #1 - R-35ci Roof Assembly

- Roof Membrane
- 3.1” Polyiso Boards
- Structural Roof Deck

Two layers of 3.1” polyiso | R-36.0

Option #2 - R-35ci Roof Assembly

- Roof Membrane
- 0.5” HD Polyiso Cover Board
- 2.9” Polyiso Boards
- Structural Roof Deck

Two layers of 2.9” polyiso | R-33.6
0.5” HD polyiso cover board | R-2.5
Total | R-36.1
About PIMA

Since 1987, PIMA has served as the voice of the North American rigid polyiso insulation industry. PIMA is a leading advocate for safe, cost-effective, sustainable, and energy-efficient construction. The Association is comprised of polyiso manufacturers and industry suppliers, and represents the public policy interests of its membership at the local, national, and international levels to advance high-performance building practices.

About Polyiso Insulation

Polyiso is a rigid foam insulation used in more than 70% of commercial roof construction and offers a continuous insulation solution for commercial and residential wall assemblies. As one of North America’s most widely used and readily available building products, polyiso is a cost-effective insulation option for reducing building energy use and improving the overall service-life of roofs and walls.

For more information on polyisocyanurate insulation, visit www.polyiso.org