The applicable building energy code that determines the minimum insulation requirements for commercial roofs with insulation entirely above the deck in Michigan is the [Commercial Michigan Energy Code](https://www.michigan.gov/energy) (based on ASHRAE 90.1-2013 with state-specific amendments). This code is effective September 20, 2017. The minimum insulation requirements apply both to new construction and roof replacements on existing buildings.

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

**Minimum R-values:**
- Climate Zone 7: R-35ci
- Climate Zone 6: R-30ci
- Climate Zone 5: 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](https://www.pimia.com)
- [U.S. Department of Energy](https://www.energy.gov)
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
PIMA

For more than 30 years, PIMA (Polyisocyanurate Insulation Manufacturers Association) has served as the unified voice of the rigid polyiso industry proactively advocating for safe, cost-effective, sustainable and energy-efficient construction. PIMA’s membership includes manufacturers of polyiso insulation and suppliers to the industry. PIMA members produce the majority of polyiso used in North America.

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.