



# Office of the City Clerk

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## Legislation Text

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File #: O2019-1438, Version: 1

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Chicago City Council March 13,  
2019

Referred to Committee on Zoning, Landmarks and Building Standards

## ORDINANCE

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICAGO:**

SECTION 1. Chapter 18-13-2J0 is hereby amended by adding the language underlined and deleting the language struck through as follows:

**~~t\$18-13-220.~~ 18-13-230 Chapter 4 [CE] of IECC - Adopted with modification.**

The provisions of Chapter 4 [CE] of the International Energy Conservation Code are adopted by reference and shall apply with the following modifications:

*(Omitted text is unaffected by this ordinance)*

2. C402.3 Roof solar reflectance and thermal emittance. Delete existing C402.3. Insert a new C402.3, titled "Urban heat island provisions":

C402.3 Urban heat island provisions. The following are exempt from the reflectance requirements:

1. The portion of the roof acting as a substructure for and covered by a rooftop deck, or vegetation associated with an extensive or intensive green roof as defined by the U.S. Environmental Protection Agency ("USEPA"), or by photovoltaic and solar thermal equipment.

2. A rooftop deck covering a maximum of 1/3 of the rooftop total gross area.

The remainder of the roof area must meet the reflectance requirements set forth in this section.

3. Table C402.3 Minimum Roof Reflectance and Emittance Options. Delete existing Table C402.3

4. C402.3.1 Aged roof solar reflectance. Delete existing C402.3.1. Insert a new C402.3.1, titled "Solar reflectance":

C402.3.1 Solar reflectance. All roof exterior surfaces shall have a minimum solar reflectance as specified in Section C402.3.2 through C402.3.5 when (i) tested in accordance with ASTM E903 or ASTM

E1918, (ii) tested with a portable reflectometer at near ambient conditions; (iii) labeled by the Cool Roof Rating Council, or (iv) labeled as an Energy Star qualified roof product. Any product that has been rated by the Cool Roof Rating Council or by Energy Star shall display a label verifying the rating of the product.

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5. C402.3.2 Low-sloped roofs. Insert a new C402.3.2, as follows:

C402.3.2 Low-sloped roofs. Roofing materials used in roofs with slopes of a rise of 0 units in a horizontal length of 12 units (0:12 pitch) up to and including roofs with slopes of a rise of 2 units in a horizontal length of 12 units (2:12 pitch) ("low-sloped") shall meet the following requirements:

1. Low-sloped roofs permitted on or after April 22, 2009 in conjunction with a new building or structure shall utilize roofing products that meet or exceed an initial reflectance value of 0.72 or a three-year installed reflectance value of 0.5 as determined by the Cool Roof Rating Council or by Energy Star. Low-sloped roofs permitted on or after October 22, 2019 in conjunction with a new building or structure or replacement of more than half of an existing roof must meet or exceed an initial reflectance value of 0.72 and a three-year aged reflectance value of 0.63.

Exception: Where more than 50% of the total gross area of the low-sloped roof is covered with vegetation associated with an extensive or intensive green roof as defined by the USEPA, the remainder of the roof shall have a reflectance value of a minimum of 0.30. The rooftop deck exception in C402.3 applies.

Exception: Ballasted roofs with a minimum of 15 lbs/sq. ft. of ballast over the entire roof surface may have a reflectance value of a minimum of 0.30. For purposes of this section, "ballast" shall mean river rock aggregate or larger, pavers or other means of weighing down a roofing membrane over a substrate to resist wind uplift.

6. C402.3.3 Medium-sloped roofs. Insert a new C402.3.3:

C402.3.3 Medium-sloped roofs. Roofing materials used in roofs with slopes of over a rise of 2 units in a horizontal length of 12 units (2:12 pitch) up to and including roofs with slopes of a rise of 5 units in a horizontal length of 12 units (5:12 pitch) ("medium- sloped") shall have an initial solar reflectance of 0.15 or greater. Medium-sloped roofs permitted on or after October 22, 2019 in conjunction with a new building or structure or replacement of more than half of an existing roof shall have a minimum three-year aged reflectance value of .20.

7. C402.3.4 Multiple-sloped roofs. Insert a new C402.3.4:

C402.3.4 Multiple-sloped roofs. Roofs with multiple slopes shall be subject to those requirements applicable to the slope which covers the largest area of the building footprint.

8. C402.3.5 Steep roofs. Insert a new C402.3.4:

C402.3.5 Steep roofs. Roofs with slopes greater than a rise of 5 units in a horizontal length of 12 units (5:12 pitch) shall be exempt from any initial solar reflectance requirements. Steep roofs permitted on or after October 22, 2019 in conjunction with a new building or structure or replacement of more than half of an existing roof shall have a minimum three-year aged reflectance value of .20.

*(Omitted text is unaffected by this ordinance)*

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Chicago City Council March 13,  
2019

GILBERT VILLEGAS Alderman, 36<sup>th</sup> Ward

Referred to Committee on Zoning, Landmarks and Building Standards SECTION 2.

This ordinance is effective on passage and approval.