

R301.2.1.1.1

Sunrooms



Sunroom

© pics721/Shutterstock.com.

CHANGE TYPE: Addition

CHANGE SUMMARY: The 2015 *International Residential Code* requires sunrooms to comply with AAMA/NPEA/NSA 2100-12. The standard contains requirements for habitable and nonhabitable sunrooms.

2015 CODE: R301.2.1.1.1 Sunrooms. Sunrooms shall comply with AAMA/NPEA/NSA 2100.

For the purpose of applying the criteria of AAMA/NPEA/NSA-2100 based on the intended use, sunrooms shall be identified as one of the following categories by the permit applicant, design professional, or the property owner in the construction documents. Component and cladding pressures shall be used for the design of elements that do not qualify as main wind force resisting systems. Main wind force resisting systems pressures shall be used for the design of elements assigned to provide support and stability for the overall sunroom.

Category I: A thermally isolated sunroom with walls that are open or enclosed with insect screening or 0.5 mm (20 mil) maximum thickness plastic film. The space is nonhabitable and unconditioned.

Category II: A thermally isolated sunroom with enclosed walls. The openings are enclosed with translucent or transparent plastic or glass. The space is nonhabitable and unconditioned.

Category III: A thermally isolated sunroom with enclosed walls. The openings are enclosed with translucent or transparent plastic or glass. The sunroom fenestration complies with additional requirements for air infiltration resistance and water-penetration resistance. The space is nonhabitable and unconditioned.

Category IV: A thermally isolated sunroom with enclosed walls. The sunroom is designed to be heated or cooled by a separate temperature control or system and is thermally isolated from the primary structure. The sunroom fenestration complies with additional requirements for water penetration resistance, air infiltration resistance, and thermal performance. The space is nonhabitable and conditioned.

Category V: A sunroom with enclosed walls. The sunroom is designed to be heated or cooled and is open to the main structure. The sunroom fenestration complies with additional requirements for water-penetration resistance, air infiltration resistance, and thermal performance. The space is habitable and conditioned.

CHANGE SIGNIFICANCE: The 2012 *International Residential Code* defined a sunroom as “A one-story structure attached to a dwelling with a glazing area in excess of 40 percent of the gross area of the structure’s exterior walls and roof.” These structures were typically constructed in one of two manners:

1. Using typical wood framing techniques.
2. Using a stick system that consists of prefabricated framing of aluminum, fiberglass, wood, or other materials, with glass or opaque wall or roof panels, and steel or aluminum connections.

Using the 2012 IRC, the first technique was done in accordance with the provisions of the IRC for wood framed construction. There were no provisions for the second method of constructing a sunroom other than by engineering analysis or demonstrating equivalence to the current provisions of the *International Residential Code*.

By adding reference to the provisions of AAMA/NPEA/NSA 2100-12 *Specifications for Sunrooms* to the IRC, prescriptive construction is easier. Sunrooms designed and constructed in accordance with AAMA/NPEA/NSA 2100 are required within the standard to meet the structural provisions of the IRC or IBC. In addition, the standard establishes specific requirements for these structures based upon their designated category.

AAMA/NPEA/NSA 2100 was first published in 2002 by the American Architectural Manufacturers Association (AAMA), the National Sunroom Association (NSA), and the National Patio Enclosure Association (NPEA). It is the first U.S. standard for the design and specification of sunrooms. The standard creates five categories of sunrooms based upon intended use of the space. Specific design and performance criteria based on end use were added to the standard.

The standard was later revised to meet the requirements of AAMA/WDMA/CSA 101/I.S.2/A440 for the design, testing, and labeling of windows, glass doors, and skylights, and the foundation requirements of the *International Residential Code*.

AAMA/NPEA/NSA 2100, and the five categories of sunrooms it establishes, clarifies criteria for sunrooms with regard to egress, natural ventilation, and resistance of the exterior envelop to air leakage and water penetration.