
FIRE PREVENTION AND BUILDING SAFETY COMMISSION
Department of Homeland Security

Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2022-18-2014 IMC-507.9

Building or Fire Safety Law Interpreted

[675 IAC 18-1.6](#) **2014 Indiana Mechanical Code, Section 507.9 Clearances for Type I hood.** A Type I hood shall be installed with a *clearance* to combustibles of not less than 18 inches (457 mm).

Exception: *Clearance* shall not be required from gypsum wallboard or 1/2-inch (12.7 mm) or thicker cementitious wallboard attached to noncombustible structures provided that a smooth, cleanable, nonabsorbent and noncombustible material is installed between the hood and the gypsum, or cementitious wallboard over an area not less than 18 inches (457 mm) in all directions from the hood.

Issue

Whether a construction material that is considered noncombustible under the *2014 Indiana Building Code (IBC)* but not under the *2014 Indiana Mechanical Code (IMC)* is permitted by the *2014 IMC* to be installed within 18 inches of a Type I hood.

Interpretation of the State Building Commissioner

No, a construction material that is considered noncombustible under the *2014 IBC* but not under the *2014 IMC* is not permitted by the *2014 IMC* to be installed within 18 inches of a Type I hood, unless it qualifies under the stated exception, which requires the structure to be of a noncombustible construction type.

Rationale

The interested person proposes installation, within 18 inches of a Type I hood, a ceiling panel product that has been tested in accordance with ASTM E 84. They maintain that such a material is considered by the *2014 IBC* to be "acceptable for an ASTM E 136 classification", and that it is therefore considered noncombustible by the *2014 IBC* and should be allowed by the *2014 IMC* to be installed in this location.

However, the regulations determining the noncombustible nature of materials are different between the two codes in question. The *2014 IBC* ties noncombustible status to specific testing and performance criteria provided in its Section 703.5, whereas the *2014 IMC* provides an actual definition of "noncombustible", and they are not precisely the same criteria. Since the interpretation request stems from a *2014 IMC* violation, and that document provides its own definition of "combustible", it is that definition that is relevant, and not the performance requirements found in the *2014 IBC* (see also Written Interpretation #CEB-2020-39-2014 IMC-507.9).

The *2014 IMC* definition of "noncombustible" is as follows:

Materials that, when tested in accordance with ASTM E 136, have at least three of four specimens tested meeting all of the following criteria:

1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.
2. There shall not be flaming from the specimen after the first 30 seconds.
3. If the weight loss of the specimen during testing exceeds 50 percent, the recorded temperature of the surface and interior thermocouples shall not at any time during the test rise above the furnace air temperature at the beginning of the test, and there shall not be flaming of the specimen.

The mechanical code's basis for a material's noncombustibility therefore is the ability to meet these three performance criteria on no fewer than three of four samples tested under ASTM E 136. That is the only means for such qualification under the mechanical code. Noncombustibility considerations provided in the *2014 IBC* are irrelevant to this purpose.

While this alone is sufficient reason to render moot the building code's discussion of the characteristics of noncombustible materials, there are two additional aspects of the interested person's argument that are worth exploring for the benefit of others who may deal with similar issues:

First, on the question of applicability of the building code's noncombustibility requirements across other code documents, Section 703.5 of the *2014 IBC* limits its own applicability to just the building code, by stating its

contained criteria for noncombustibility is for the purpose of determining material acceptability "as set forth in Sections 602.2, 602.3, and 602.4.". In other words, these criteria are intended only to determine building code construction types and the materials that are allowed in them.

Second, Section 703.5 of the *2014 IBC* states that determination of noncombustible status of composite materials such as these ceiling panels requires testing of the panel's structural base in accordance with ASTM E 136, and surface burning testing in accordance with ASTM E 84. Yet the manufacturer's product information cites only the ASTM E 84 testing. These are two different testing protocols, used for different purposes, providing different results, and nowhere does the *2014 IBC* grant them equivalent status. Contrary to the interested person's assertion, successful testing under ASTM E 84 does not automatically confer the required success under ASTM E 136. When called for, each test must be successfully completed.

Posted: 11/02/2022 by Legislative Services Agency
An [html](#) version of this document.