

16-A. HCD proposes to adopt Chapter 12 from the 2015 International Building Code into the 2016 California Building Code with new and existing amendments as follows:

****Informative Note**** Section 1203, as originally proposed, has been withdrawn and replaced with the following section.

**CHAPTER 12
INTERIOR ENVIRONMENT**

**SECTION 1203
VENTILATION**

1203.3 Unvented attic and unvented enclosed rafter assemblies. Unvented attics and unvented enclosed roof framing assemblies created by ceilings that are applied directly to the underside of the roof framing members/rafters and the structural roof sheathing applied directly to the top of the roof framing members/rafters, shall be permitted where all the following conditions are met:

1. The unvented attic space is completely within the building thermal envelope.
2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.
3. Where wood shingles or shakes are used, a minimum 1/4-inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In Climate Zones ~~5, 6, 7 and 8~~, 1, 14 and 16, any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.

See the California Energy Code, FIGURE 100.1-A —California Climate Zones.

4.1 A Class I or Class II vapor retarder shall be installed on the indirectly conditioned space side of all insulation in an unvented attic with air-permeable insulation, for condensation control.

5. Insulation shall be located in accordance with the following:
 - 5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing. No insulation shall be required when roof tiles, wood shingles or wood shakes, or any other roofing system using battens and no continuous underlayment is installed. A continuous underlayment shall be considered to exist if sheathing, roofing paper or any continuous layer having a perm rate of no more than one perm under the dry cup method is present.
 - 5.1.1. Where only air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.
 - 5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Item 5.1. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing in accordance with the R-values in Table 1203.3 for condensation control.
 - 5.1.3. Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing ~~in accordance with Item 5.1.4~~ and shall be in accordance with the R-values in Table 1203.3 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.
 - 5.1.4. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45°F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

- 5.2. Where preformed insulation board is used as the ~~air-permeable~~ *air-impermeable* insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

Exceptions:

1. Section 1203.3 does not apply to special use structures or enclosures such as swimming pool enclosures, data processing centers, hospitals or art galleries.
2. Section 1203.3 does not apply to enclosures in Climate Zones ~~5 through 8~~ 1, 14, and 16 that are humidified beyond 35 percent during the three coldest months.

**TABLE 1203.3
INSULATION FOR CONDENSATION CONTROL**

CLIMATE ZONE	MINIMUM R-VALUE OF AIR-IMPERMEABLE INSULATION ^a
2B and 3B <u>6-15</u> tile roof only	0 (none required)
1, 2A, 2B, 3A, 3B, 3C <u>3-15</u>	R-5
4C <u>1&2</u>	R-10
4A, 4B <u>16</u>	R-15
5	R-20
6	R-25
7	R-30
8	R-35

- a. Contributes to, but does not supersede, thermal resistance requirements for attic and roof assemblies in ~~Section C402.2.1 of the International~~ California Energy Conservation Code