

**ANSI/ASHRAE/ICC/USGBC/IES Addendum c to  
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017**

# **Standard for the Design of High-Performance Green Buildings**

## **Except Low-Rise Residential Buildings**

*The Complete Technical Content of the International Green Construction Code<sup>®</sup>*

Approved by the ASHRAE Standards Committee on June 22, 2019; by the ASHRAE Technology Council on June 26, 2019; by the International Code Council on May 31, 2019; by the USGBC Board of Directors on July 9, 2019; by the IES Board of Directors on June 10, 2019; and by the American National Standards Institute on June 27, 2019.

These addenda were approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE<sup>®</sup> website (<https://www.ashrae.org/continuous-maintenance>).

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

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- a. interpretation of the contents of this Standard,
- b. participation in the next review of the Standard,
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**(This foreword is not part of this addendum. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objections on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

*Addendum c updates the existing requirements for the volatile organic compound (VOC) content option of paints and coatings by (a) limiting the paint categories that can use the VOC content option and (b), for paint categories using the VOC content option, requiring them to comply only with the requirements of the California Air Resources Board Suggested Control Measure for Architectural Coatings.*

**Note:** In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striking through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

### Addendum c to Standard 189.1-2017

#### Revise Section 8.4.2 as shown.

**8.4.2 Materials.** Reported emissions or volatile organic compound (VOC) contents specified in the following subsections shall be from a representative product sample, and Emissions testing shall be conducted ~~determined~~ with each product reformulation or at a minimum of every three years.

**Exception to Section 8.4.2:** Products certified under third-party certification programs as meeting the specific emission ~~or VOC content~~ requirements listed in the following subsections are exempted from ~~this~~ the three-year testing requirement ~~but shall meet all the other requirements as listed.~~

#### Revise Section 8.4.2.2 as shown.

**8.4.2.2 Paints and Coatings.** Products in this category include ~~anticorrosive coatings, basement specialty coatings, concrete/masonry sealers, concrete curing compounds, dry fog coatings, faux finishing coatings, fire resistive coatings, flat and nonflat topcoats, floor coatings, graphic arts (sign) coatings, high temperature coatings, industrial maintenance coatings, low solids coatings, mastic texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, primers, reactive penetrating sealers, recycled coatings, shellacs (clear and opaque), specialty primers, stains, stone consolidants, swimming pool coatings, tub and tile refining coatings, undercoaters, waterproofing membranes, wood coatings (clear wood finishes), wood preservatives, and zinc primers. Paints and coatings~~ All architectural

coatings, as defined by the California Air Resources Board (CARB) Suggested Control Measure (SCM) for Architectural Coatings, applied on-site on the interior of the building shall meet the following requirements. Flat, nonflat, primer, sealer, and undercoater coatings, used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with either Section 8.4.2.2.1 or 8.4.2.2.2 Sections 8.4.2.2.1 and 8.4.2.2.2. All other architectural coatings shall comply with either Section 8.4.2.2.1 or 8.4.2.2.2.

**8.4.2.2.1 Emissions Requirements** Emissions shall be determined according to CDPH/EHLB/Standard Method V1.1 (commonly referred to as California Section 01350) and shall comply with the limit requirements for either office or classroom spaces regardless of the space type. The emissions testing shall be performed by an ISO/IEC 17025 accredited laboratory that has the CDPH/EHLB/Standard Method V.1.1, U.S. EPA Method TO-17 and ASTM Standard Method D5197 within the scope of its accreditation. Third-party certifiers shall be accredited to ISO/IEC 17065 and have the relevant certification program in the scope of accreditation.

**8.4.2.2.2 Volatile Organic Compound (VOC) Content Requirements.** The VOC content of architectural coatings shall comply with VOC limits of the CARB SCM for Architectural Coatings.

~~**8.4.2.2.2 Volatile Organic Compound (VOC) Content Requirements**~~

- ~~a. The VOC content for flat and non-flat coatings, non-flat high gloss coatings, specialty coatings, basement specialty coatings, concrete/masonry sealers, fire resistive coatings, floor coatings, low solids coatings, primers, sealers and undercoaters, rust preventative coatings, shellacs (clear and opaque), stains, wood coatings, reflective wall coatings, varnishes, conjugated oil varnish, lacquer, and clear brushing lacquer shall be determined and limited in accordance with Green Seal Standard GS-11~~
- ~~b. The VOC content for concrete curing compounds, dry fog coatings, faux finishing coatings, graphic arts coatings (sign paints), industrial maintenance coatings, mastic texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, reactive penetrating sealers, recycled coatings, specialty primers, wood preservatives, and zinc primers shall be determined and limited in accordance with the California Air Resources Board Suggested Control Measure for Architectural Coatings or SCAQMD Rule 1113r.~~
- ~~e. The VOC content for high temperature coatings, stone consolidants, swimming pool coatings, tub and tile refinishing coatings, and waterproofing membranes primers shall be determined and limited in accordance with the California Air Resources Board Suggested Control Measure for Architectural Coatings.~~

**Modify Section as shown.**

Reference	Title	Section
[ ... ]		
<b>California Air Resources Board (CARB)</b> <b>1001 "I" Street</b> <b>P.O. Box 2815</b> <b>Sacramento, CA 95812, United States</b> <b>1-916-322-2990; www.arb.ca.gov/homepage.htm</b>		
[ ... ]		
CARB SCM for Architectural Coatings-2007	California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings	8.4.2.2.2
[ ... ]		
<b>Green Seal</b> <b>1001 Connecticut Avenue, NW, Suite 827</b> <b>Washington, DC 20036-5525, United States</b> <b>1-202-872-6400; www.greenseal.org</b>		
GS-11, 3.2, October 26, 2015	Green Seal Standard for Paints, Coatings, Stains, and Sealers. Section 3.0: "Product-Specific Health and Environmental Requirements	8.4.2.2.2
[ ... ]		

### **POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

