

INTERIOR PAINTS & COATINGS

LEED v4 (Ballot version) EQ Credit: Low-Emitting Materials

U.S. Requirements

VOC Content – Products shall meet the VOC content limits for the applicable category in the California Air Resources Board 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, June 2011. The VOC content is defined in both regulations as the weight of VOC per volume of coating less the volume of water and exempt compounds. For tint bases, VOC content is determined without added colorant. In the SCM, the VOC content limits for coating categories are listed in Table 1. In SCAQMD Rule 1113, the VOC content limits for coating categories are listed in Table of Standards 1 and the VOC content limits for colorants are listed in Table of Standards 2.

Intentionally added exempt compounds that comprise greater than 1% weight by mass of the product shall be disclosed. For the SCM, exempt VOCs are listed in Section 4.63. For the SCAQMD, exempt VOCs are listed in Rule 102, Definition of Terms. The exempt compounds methylene chloride and perchloroethylene (tetrachloroethene) shall not be used as ingredients.

Products may be tested for VOC content as described in SCM and SCAQMD Rule 1113. The SCM specifically allows determination of VOC content based on formulation. For both the SCM and SCAQMD Rule 1113, the primary reference test method is U.S. EPA Method 24 and an alternative method for VOC content is SCAQMD Method 304 with exempt compounds determined by SCAQMD Method 303. Otherwise, products shall be tested by [ASTM D6886*](#) (VOC content) and [ASTM D2369](#) (Solids content).

VOC Emissions – Products shall be tested for VOC emissions by [CDPH Standard Method V1.1](#) and determined to be compliant with the VOC emission guidelines in the Standard Method. The default modeling scenario is the private office defined in Tables 4.4 and 4.5 of the Standard Method. Claims of compliance (either self-declared or certified) shall:

- Identify the exposure scenario used to determine compliance
- State the product coverage for the test in mass of product applied per unit surface area
- Report the projected concentration of total VOCs (TVOC) at 14-days in one of three ranges, $\leq 0.5 \text{ mg/m}^3$, $>0.5 \text{ mg/m}^3$ and $<5 \text{ mg/m}^3$, or $\geq 5.0 \text{ mg/m}^3$.

Requirements for Projects Outside of U.S.

VOC Content – Interior paints and coatings shall use the U.S. requirements as the compliance pathway. Alternatively products shall comply with the applicable national VOC content regulations. Examples are the European Decopaint Directive, Canadian VOC Concentrations for Architectural Coatings, and the Hong Kong Air Pollution Control (VOC) Regulation. The VOC content test methods specified in these national regulations shall be used as applicable.

VOC Emissions – Interior paints and coatings shall use the U.S. requirements as the compliance pathway. Alternately, products shall be tested either by CDPH Standard Method V1.1 or by [ISO Standards 16000-3, 16000-6, 16000-9, and 16000-11](#) in conjunction with the German AgBB Testing and Evaluation Scheme, 2010 or the French legislation on VOC emission class labeling. Compliance shall be determined by the AgBB Scheme.

***Highlighted test standards are offered by Berkeley Analytical. Get started today and contact us at info@berkeleyanalytical.com to demonstrate compliance of your paints & coatings to LEED v4.**