LEED BD+C: Core and Shell | v3 - LEED India 2011

Low-emitting materials - flooring systems

EQc4.3 | Possible 1 point

Glossary

Intent

To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

Requirements

All flooring must comply with the following as applicable to the project scope:

- All carpet installed in the building interior must demonstrate equivalence to the emissions test criteria of the CRI Green Label Plus Carpet Program (http://www.carpet-rug.org/commercial-customers/green- building-and-the-environment/green-label-plus/carpet-and-adhesive.cfm or http://www.carpet- rug.org/pdf_word_docs/071028_Carpet_GLP_Criteria.pdf) using the ICC Evaluation Service (ICC-ES) Evaluation Guideline for Determination of Volatile Organic Compound (VOC) Content and Emissions of Floor Covering Products, EG107, as a testing protocol (http://www.saveprogram.icc- es.org/guidelines/pdf/EG107.pdf). For more information, see the Reference Guide, Figure 1, Sample Product Information for CRI Green Label Plus Carpeting.
- All carpet cushion installed in the building interior must demonstrate maximum emissions factors less than stated below (from http://www.carpet-rug.org/commercial-customers/green-building-and-the- environment/green-label-plus/cushion.cfm). The testing protocol must follow the ICC Evaluation Service (ICC-ES) Evaluation Guideline for Determination of Volatile Organic Compound (VOC) Content and Emissions of Floor Covering Products, EG107 (http://www.saveprogram.icc-es.org/guidelines/pdf/EG107.pdf).

	Maximum Allowance
TVOCs	1000 µg/m² per hour
BHT	300 µg/m² per hour
Formaldehyde	50 µg/m² per hour
4-PCH	50 µg/m² per hour

- All carpet adhesive must meet the requirements of IEQ Credit 4.1: Adhesives and Sealants, which includes a volatile organic compound (VOC) limit of 50 g/L (0.4 lb/gal).
- All hard surface flooring must demonstrate maximum emissions factors less than or equal to those stated below, as shown with testing by an independent third party. Mineral-based finish flooring products such as tile, masonry, terrazzo, and cut stone without integral organic-based coatings and sealants and unfinished/untreated solid wood flooring qualify for credit without any IAQ testing requirements. However, associated site-applied adhesives, grouts, finishes and sealers must be compliant for a mineral- based or unfinished/untreated solid wood flooring system to qualify for credit. The testing protocol to determine the emissions factors must follow the ICC Evaluation Service (ICC-ES) Evaluation Guideline for Determination of Volatile Organic Compound (VOC) Content and Emissions of Floor Covering Products, EG107 (http://www.saveprogram.icc-es.org/guidelines/pdf/EG107.pdf).

a. Formaldehyde, 1.65 µg/m3 per hour
b. Acetaldehyde, 9 µg/m3 per hour
c. All other organic chemicals with established Chronic Reference Exposure Levels (CRELs) less than or equal to 1/2 CREL as listed in the latest edition of the Cal/EPA OEHHA list of chemicals with noncancer CRELs (http://www.oehha.ca.gov/air/chronic_rels/AllChrels.html).

- Concrete, wood, bamboo and cork floor finishes such as sealer, stain and finish must not exceed the VOC limits listed in IEQ Credit 4.2: Paints and Coatings.
- Tile setting adhesives and grout must not exceed the VOC limits listed in IEQ Credit 4.1: Adhesives and Sealants.

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