CRADLE TO CRADLE CERTIFIED™
PRODUCT STANDARD
VERSION 4

VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS TESTING

DRAFT FOR PUBLIC COMMENT
**Demonstrating Low VOC Emissions**

For the Silver level, one of the following or an equivalent must be used to demonstrate low VOC emissions:

1. Schemes that are recognized at the general level by BREEAM for the VOC Emissions from Building Products credit. [REF: GN22: BREEAM Recognized Schemes for Emissions from Building Products, Table 2, version 2.1 of October 2016 or later]
2. Schemes that are recognized at the general level by the BREEAM International New Construction 2016 or later Technical Standard. [REF: BREEAM International New Construction 2016 or later Technical Standard, Hea 02 Indoor Air Quality, table 17.]
3. Certifications and labels recognized for LEED v4 or later EQ Credit Low-Emitting Materials. [REF: LEED v4 EQ Credit Low-Emitting Materials Third Party Certifications and Labels - version of June 2017 or later] Any mentioned additional requirements, supplemental to the respective program must also be fulfilled.
4. Per LEED v4 or LEED v4.1 General emissions evaluation, option 1 - compliance with CDPH Standard Method v1.1 or later, including a statement of the exposure scenarios and disclosure of the TVOC range.
5. Per LEED v4 or LEED v4.1 General emissions evaluation, option 2 - compliance with AgBB (2015 or later), including formaldehyde emissions ≤10 µg/m³. The TVOC range must be disclosed if complying with LEED v4.1.
6. For textile floor coverings: Schemes and labels listed in DGNB System 2018 or later, ENV 1.2 Local and Environmental Impact, Appendix 1 Criteria Matrix (all quality levels).
7. For resilient/elastic floor coverings: Compliance with RAL UZ 120.
8. For composite wood: Compliance with CARB ULEF or NAF requirements, or 100% of the European E1 formaldehyde class as tested per EN 717 or EN 16516.

**Demonstrating Very Low to No VOC Emissions**

For the Gold and Platinum levels, one of the following or an equivalent must be used to demonstrate very low to no VOC emissions:

1. Schemes that are recognized at the exemplary level by BREEAM for VOC Emissions from Building Products credit. [REF: GN22: BREEAM Recognized Schemes for Emissions from Building Products, Table 2, version 2.1 of October 2016 or later]
2. Schemes that are recognized at the exemplary level by the BREEAM International New Construction 2016 or later Technical Standard. [REF: BREEAM International New Construction 2016 or later Technical Standard, Hea 02 Indoor Air Quality, table 17.]
3. Per LEED v4 or LEED v4.1 General emissions evaluation, option 1 - compliance with CDPH Standard Method v1.1 or later and TVOC emissions no higher than 0.5 mg/m³ (500 µg/m³) at a time point
no later than 14 days of storage in a ventilated test chamber, or after 10 days conditioning and 4
days of storage in a ventilated test chamber.

4. Per LEED v4 or LEED v4.1 General emissions evaluation, option 2 - compliance with AgBB (2015 or
later), including formaldehyde emissions ≤10 µg/m³ and TVOC emissions ≤ 0.3 mg/m³ (300
µg/m³) at a time point not later than 28 days of storage in a ventilated test chamber.

5. Schemes and labels listed in DGNB System 2018 or later, ENV 1.2 Local and Environmental Impact,
Appendix 1 Criteria Matrix as follows:
   a. For textile floor coverings: compliance with any quality level and demonstration that
      formaldehyde is ≤10 µg/m³ after 28 days of storage in a ventilated test chamber.
   b. For primers, precoats, fillers, and adhesives under wall and floor coverings, compliance with
      quality levels 2, 3, or 4.
   c. For barrier coatings, resin screeds, and seals under tiles, compliance with quality levels 3 or
      4.
   d. For polyurethane and silane modified polymers used as sealing compounds, compliance with
      quality levels 3 or 4.

6. For resilient/elastic floor coverings: Compliance with RAL UZ 120 and formaldehyde ≤10 µg/m³
   after 28 days of storage in a ventilated test chamber.

7. For composite wood: Compliance with CARB ULEF or NAF requirements, or 100% of the European
   E1 formaldehyde class as tested per EN 717 or EN 16516.

8. For furniture:
   a. Compliance with ANSI/BIFMA e3-2014 Furniture Sustainability Standard, Sections 7.6.1 and
      7.6.2, or
   b. FEMB Sustainability requirements for office and non-domestic furniture for indoor use,
      chapter 7.6.1 and 7.6.2 (FEMB 2014, or more recent version).