

COMPLIANCE TESTED by berkeley analytical

VOC Emission Test Certificate

Product Name: Titebond PROvantage Weatherproof Subfloor Adhesive - 5481

| Product Sample Information | | Certificate Information | | |
|----------------------------|---------------------------------|-------------------------|--------------------------------------|--|
| Manufacturer: | Franklin International | Certificate No: | 160204-02 | |
| Manf. Website: | www.franklininternational.com | Certified By: | far: F- | |
| CSI Category & No.: | Painting and Coating (09 90 00) | | Raja S. Tannous, Laboratory Director | |
| Date Produced: | 11/25/2015 | Date: | February 4, 2016 | |

Reference Standard: California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010 (Emission testing method for CA Specification 01350)

Acceptance Criteria and Results Demonstrating Compliance of Product Sample to Referenced Standard:

| Exposure Scenario ¹ | Individual VOCs of Concern ² | | Formaldehyde ³ | | TVOC⁴ |
|--------------------------------|---|------------|---------------------------|------------|---------------------------|
| | Criterion | Compliant? | Criterion | Compliant? | Range |
| School Classroom | ≤½ Chronic REL | YES | ≤9.0 μg/m ³ | YES | $\leq 0.5 \text{ mg/m}^3$ |
| Private Office | ≤½ Chronic REL | YES | ≤9.0 μg/m³ | YES | $\leq 0.5 \text{ mg/m}^3$ |

Product Coverage⁵: 41 g/m

1. Exposure scenarios & product quantities for classroom & office are defined in Tables 4-2 – 4-5 (CDPH Std. Mtd. V1.1-2010)

2. Maximum allowable concentrations of individual target VOCs are specified in Table 4-1 (*ibid*.)

3. Maximum allowable formaldehyde concentration is $\leq 9 \ \mu g/m^3$, effective Jan 1, 2012; previous limit was $\leq 16.5 \ \mu g/m^3$ (ibid.)

4. Informative only; predicted TVOC Range in three categories, i.e., ≤0.5 mg/m³, >0.5 – 4.9 mg/m³, and ≥5.0 mg/m³

5. Informative and applicable only to tests of wet-applied products; grams of sample applied per square meter of substrate

Standards & Codes Recognizing CDPH Standard Method V1.1 (partial list)

- CALGreen, CA Code of Regulations Title 24, Part II, 2012
- USGBC LEED CI, NC, Schools, Healthcare, 2009
- USGBC LEED Version 4, BD&C, ID&C, 2013
- Collaborative for High Performance Schools (CHPS), National Core Criteria, 2013
- ANSI/GBI 01-2010, Green Building Assessment Protocol

Narrative: Franklin International selected a sample representative of its Titebond PROvantage Weatherproof Subfloor Adhesive product - 5481 and submitted it on 1/12/2016 for testing. Berkeley Analytical measured and evaluated the emissions of VOCs from this sample following CDPH/EHLB/Standard Method V1.1-2010. The results of the test are presented in Berkeley Analytical report, 338-015-02A-Feb0416.

Berkeley Analytical is an independent, third-party laboratory specializing in the analysis of organic chemicals emitted by and contained in building products, finishes, furniture, and consumer products. We are an ISO/IEC 17025 accredited laboratory (IAS, <u>TL-383</u>); all standards used in performing this test are in Berkeley Analytical's scope of accreditation.

DISCLAIMER: THIS CERTIFICATE OF COMPLIANCE AFFIRMS THAT: 1) A SAMPLE OF THE LISTED PRODUCT WAS TESTED ACCORDING TO THE REFERENCED STANDARD; 2) THE MEASURED VOC EMISSIONS FROM THE SAMPLE WERE EVALUATED FOR THE DEFINED EXPOSURE SCENARIO(S); AND 3) THE RESULTS MEET THE ACCEPTANCE CRITERIA OF THE REFERENCED STANDARD(S). BERKELEY ANALYTICAL IS NOT RESPONSIBLE FOR ANY CLAIMS REGARDING A PRODUCT OR PRODUCTS ENTERED INTO COMMERCE THAT MAY BE BASED ON THIS TEST. BERKELEY ANALYTICAL PROVIDES THIS CERTIFICATE OF COMPLIANCE "AS IS" WITHOUT WARRANTY OF ANY KIND,

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