



COMPLIANCE TESTED by berkeley analytical

VOC Emission Test Certificate

Product Name: QuietCoat®

Product Sample Information		Certificate Information	
Company:	PABCO Gypsum	Certificate No:	190208-01
Company Website:	www.pabco gypsum.com	Certified By:	 Raja S. Tannous, Laboratory Director
Product Type:	Paints & Coatings	Date:	February 8, 2019
Date Produced:	11/15/2018		

Reference Standard: California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017 (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		TVOC ⁴
	Criterion	Compliant?	Criterion	Compliant?	Range
School Classroom	≤½ Chronic REL	YES	≤9.0 µg/m ³	YES	≤ 0.5 mg/m ³
Private Office	≤½ Chronic REL	YES	≤9.0 µg/m ³	YES	≤ 0.5 mg/m ³

Product Coverage⁵: 989 g/m²

1. Exposure scenarios & product quantities for classroom & office are defined in Tables 4-2 – 4-5 (CDPH Std. Mtd. V1.2-2017)
2. Maximum allowable concentrations of individual target VOCs are specified in Table 4-1 (*ibid.*)
3. Maximum allowable formaldehyde concentration is ≤9 µg/m³, effective Jan 1, 2012; previous limit was ≤16.5 µg/m³ (*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 V1.2 (partial list)

- USGBC LEED Version 4, BD&C, ID&C
- The WELL Building Standard
- ANSI/GBI 01, Green Building Assessment Protocol
- ANSI/ASHRAE/USGBC/IES Standard 189.1

Narrative: PABCO Gypsum selected a sample representative of its QuietCoat® acoustical coating for HVAC supply ducts product and submitted it on 1/18/2019 for testing. Berkeley Analytical measured and evaluated the emissions of VOCs from this sample following CDPH/EHLB/Standard Method V1.2-2017. The results of the test are presented in Berkeley Analytical report, 418-021-08A-Feb0819.

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, [TL-383](#)); 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, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.



February 8, 2019

Subject: *RE: VOC Emission Testing; CDPH Standard Method V1.2; non-full spread application calculations*

Below are the rationale and the calculations for quantity of QuietCoat® product by QuietRock® by PABCO Gypsum, that would be used on substrates such as metal, plastic, etc.

Application rate: At a thickness layer of 0.02" per layer, the material can be applied up to 3 layers (0.06") on the substrate. In a worst-case scenario, one gallon of QuietCoat with a wet weight of 12.58 lbs, therefore, can provide a coverage of 40 sq. ft.

QuietCoat required to coat one (1) sq. ft of substrate with 3 layers (0.06" thickness):

1 gallon = 12.58 lbs (wet weight)

Coverage from 1 gallon = 40 sq. ft

Weight of coating to cover 1 sq. ft = $12.58/40 = 0.3145$ lbs.

An example of a typical HVAC duct work for classroom and office (provided by Berkeley Analytical, Richmond, CA) is given below:

Below is the rationale and calculations for QuietCoat used in a standard office and standard classroom assuming product sample applied on all the inner surface area of the HVAC metal supply ducts.

CLASSROOM 40 ft x 24 ft x 8.5 ft

Supply Duct – 16"x16" rectangular duct enters the classroom then reduces to 12"x12" rectangular duct, There are total eight take offs - snap lock round pipe construction. There are total eight 5' long round flexible ducts connecting the register to the main duct. Surface area is calculated below,

20' long 16" x 16" rectangular duct plus one 16" to 12" reducer modeled as 1' x 16"x16"

21' x (16" x 4) = 112 sq ft

15' long 12" x 12" rectangular duct plus one end cap.

15' x (12"x 4) = 60 sq ft

1 end cap 12"x12" = 1 sq ft

8 take offs - snap lock round pipe construction

8 x 5' long 8" diameter round flexible duct

$$8 \times (5' \times 3.14 \times 8") = 83.7 \text{ sq ft}$$

Less 8 taps at 8" diameter

$$8 \times 3.14 \times 8''^2 / 4 = 2.8 \text{ sq ft}$$

Total Classroom 253.9 square feet at 40 - 80 square feet/gallon application rate

OFFICE 12 ft x 10 ft x 9 ft

Supply Duct - 12"x12" rectangular duct entering the private office, one take off with snap lock round pipe construction, flexible duct connects to the register. Total surface area is calculated below,

$$12" \times 12" \text{ at } 10' \text{ length} = 40 \text{ sq ft}$$

$$1 \text{ end cap } 12" \times 12" = 1 \text{ sq ft}$$

$$\text{Less 1 tap at 8" diameter} = 0.35 \text{ sq ft}$$

Total Office 40.65 square feet at 40 - 80 square feet/gallon application rate

Sunder Ram

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