



COMPLIANCE TESTED by berkeley analytical

VOC Emission Test Certificate

Product Name: CP 648 - E&S

Product Sample Information		Certificate Information	
Company:	Hilti Inc.	Certificate No:	220713-02
Company Website:	www.hilti.com	Certified By:	 Raja S. Tannous, Laboratory Director
Product Type:	Fire protection Pipe Collar	Date:	July 13, 2022
Date Produced:	2/28/2022		

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: See manufacturer’s letter attached for loading calculations

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 4/4.1, BD&C, ID&C, Residential BD&C Multifamily
- The WELL Building Standard, WELL v2, Feature X06
- ANSI/GBI 01-2019 Green Globes Assessment Protocol

Narrative: Hilti Inc. selected a sample representative of its CP 648 - E&S - a firestop wrap strip product and submitted it on 5/4/2022 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, 1031-013-01A-Jul1322.

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.



Berkley Analytical
Mr. Alec Huang
815 Harbor Way South, suite 6
Richmond, CA 94804

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

Below are the rational and calculations for the quantity of Hilti CP 648 E+S Firestop Wrap Strips that would be used in the standard school classroom and the standard private office as defined in the CDPH Standard Method V1.2.

CLASSROOM

The dimensions of a typical classroom are given by the CDPH Standard as 40 ft x 24 ft. Assumption: In the 40 ft x 24 ft classroom there will a total of 8 - 2 inch pipe wall penetrations (4 in/4 out). Firestopping the 2 inch pipe would require a section of CP 648 that is 1 inch wide by 7.1 inches long.

- Total material required = 1in. x 7.1in. x 8 = 56.8 in²

OFFICE

The dimensions of a typical office are given by the CDPH Standard as 12 ft x 10 ft. Assumption: In the 12 ft x 10 ft office there will a total of 4 - 2 inch pipe wall penetrations (2 in/2 out). Firestopping the 2 inch pipe would require a section of CP 648 that is 1 inch wide by 7.1 inches long.

- Total material required = 1" x 7.1" x 4 = 28.4 in²
-

Please contact me if you have any questions

Jerry Metcalf MPH, CHMM
Sr. Manager Safety/Environmental
jerry.metcalf@hilti.com
918 872 3704