



# COMPLIANCE TESTED by berkeley analytical

## VOC Emission Test Certificate

Product Name: MM-80P

Product Sample Information		Certificate Information	
Company:	Metzger McGuire	Certificate No:	231129-02
Company Website:	www.metzgermcguire.com	Certified By:	 Raja S. Tannous, Laboratory Director
Product Type:	Floor Joint Filler	Date:	November 29, 2023
Date Produced:	10/31/2023		

**Reference Standard & Modeling Scenario:** California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017 (Emission testing method for CA Specification 01350); Section 4.3.6, Company defined application, see attached Company statement

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

Exposure Scenario <sup>1</sup>	Individual VOCs of Concern <sup>2</sup>		Formaldehyde <sup>3</sup>		TVOC <sup>4</sup>
	Criterion	Compliant?	Criterion	Compliant?	Range
School Classroom	≤½ Chronic REL	YES	≤9.0 µg/m <sup>3</sup>	YES	≤ 0.5 mg/m <sup>3</sup>
Private Office	≤½ Chronic REL	YES	≤9.0 µg/m <sup>3</sup>	YES	≤ 0.5 mg/m <sup>3</sup>

**Sample Coverage<sup>5</sup>:** 53900 g/m<sup>2</sup>

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/m<sup>3</sup>, effective Jan 1, 2012; previous limit was ≤16.5 µg/m<sup>3</sup> (*ibid.*)
4. Informative only; predicted TVOC Range in three categories, i.e., ≤0.5 mg/m<sup>3</sup>, >0.5 – 4.9 mg/m<sup>3</sup>, and ≥5.0 mg/m<sup>3</sup>
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:** Metzger McGuire selected a sample representative of its MM-80P - MMM8P-10 product and submitted it on 11/2/2023 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, 1040-008-02A-Nov2923.

**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.



**Date:** 11/29/2023

**RE:** Statement of product quantities to be used to model and determine compliance of test results with VOC emission guidelines in CDPH Standard Method V1.2 (see Section 4.3.6)

**Company Name:** Metzger/McGuire

**Location:** 807 Rte 3A Bow, NH 03304 USA

**Contact:** Scott Metzger, President

**Name/Number of Product Sample:** MM-80P Sample ID: 231031-1

**How Product is Used in Buildings:** Semi-rigid joint filler for filling/sealing saw cut contraction joints and construction joints in concrete floors.

**Basis for Determining Typical or Realistic Worst-case Product Use:** Model for product usage is based on coverage rates at common saw cut joint widths and depths based on American Concrete Institute guidelines as referenced in ACI Reports 302 and 360 and ACI Specifications 301 and 310 for concrete slabs on ground. Coverage rates are referenced on our technical data sheet (TDS) M-1P.

**Typical or Realistic Worst-case product areas for CDPH Standard Method V1.2 modeling:**

“Below are the rationale and the calculations for quantity of [Metzger/McGuire MM-80P](#) that would be used in the standard school classroom and the standard private office defined in CDPH Standard Method V1.2.”

***Standard School Classroom (CDPH Standard Method, Table 4-2)***

As the [Metzger/McGuire MM-80P](#) joint filler is only designed for use in filling sawcut contraction joints or construction joints in a concrete floor slab overall quantity of material should not exceed overall lineal footage count of joints and will be based on joint dimension. American Concrete Institute guidelines (and common industry practice) is to place joints no further apart than  $30t$  where  $t$ =slab thickness. Most slabs on ground in schools are placed at depths of 4-5” in thickness. At 5” anticipated slab thickness joint spacing would be approx. 12.5’ on center. In a 40’x24’ room (ceiling height of 8.5’ not relevant as this is only for floor) following guidelines there would be 3 joints 24’ long and 1 joint 40’ long. That’s a total of 112 lf of joint. Typical sawcut joints are cut at 1/8” wide and  $t/4$  deep – or 1.25” in a 5’ slab. Due to normal concrete shrinkage, joints typically open to 3/16” in width by time of filler installation. Coverage rate for joints 3/16” wide x 1.25” deep is 85 lineal feet/gallon. Accordingly, the maximum amount of material that would be used in “worst case” scenario in a 40x24x8.5’ room would be approximately 1.35 gallons. Coverage rates are referenced on Spal-Pro RS 88 Technical Data Sheet.

***Standard Private Office (CDPH Standard Method, Table 4-4)***

As the [Metzger/McGuire MM-80P](#) joint filler is only designed for use in filling sawcut contraction joints or construction joints in a concrete floor slab overall quantity of material should not exceed overall

lineal footage count of joints and will be based on joint dimension. American Concrete Institute guidelines (and common industry practice) is to place joints no further apart than  $30t$  where  $t$ =slab thickness. Most slabs on ground in schools are placed at depths of 4-5" in thickness. At 5" anticipated joint spacing would be approx. 12.5 feet on center. In a 12'x10' room (ceiling height of 9' not relevant as this is only for floor) following guidelines there would be no saw cut joints required. Assuming a designer decided to include at least one saw cut in both directions for decorative purposes, the result would be one joint 12' long and one joint 5' long for a total of 15 lf. Due to normal concrete shrinkage, joints typically open to 3/16" in width by time of filler installation. Coverage rate for joints 3/16" wide x 1.25" deep is 85 lineal feet/gallon. Accordingly, the maximum amount of material that would be used in "worst case" scenario in a 12'x10'x9' room would be approximately 0.25 gallon.