



## TESTING DATA P.1

Research Triangle Park Laboratories Inc, 7201 ACC Blvd., Raleigh, NC 27617

### California 01350/ASTM D5116 Small Chamber Tests for Volatile Organic Compound Emissions From Products

**Project ID: 14-177**

**Client: Tile Council of North America**

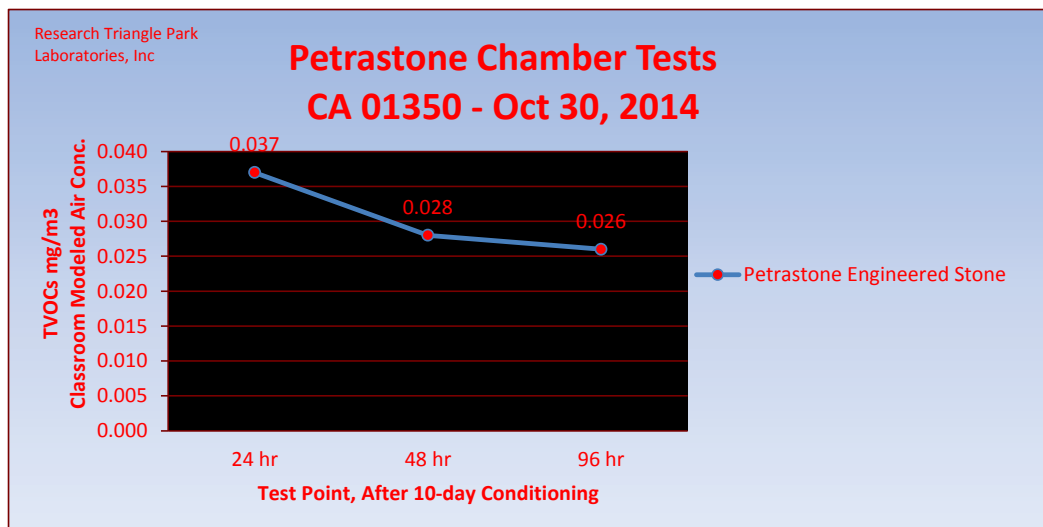
**Sample Receipt Date: Oct 17, 2014**

**Test Start Date: Oct 30, 2014**

**Products:**

Petrastone Engineered Stone

Modeled Standard Classroom Concentration, mg/m <sup>3</sup>			
24 hr	48 hr	96 hr	LOQ
0.037	0.028	0.026	0.001



#### Standard Classroom Model Parameters:

Room Dimensions: 40 ft length x 24 ft wide x 8.5 ft ht

Room Volume: 231 m<sup>3</sup>

Ventilation Rate: 0.90 air changes per hour

Net Floor Surface: 89.2 m<sup>2</sup>

#### Chamber and Sample Conditions:

Chamber Volume: 50 Liters

Temperature: 20-25 C; Relative Humidity: 45-55 %

Air Exchange Rate: 1 per hour (0.833L/min = 50 liters)

Sample Surface Area: 0.0232 m<sup>2</sup>

Sample Loading Factor: 0.5 m<sup>2</sup>/m<sup>3</sup>





## TESTING DATA P.2

### EMISSION FACTOR CALCULATIONS FOR FLOORING PRODUCTS

Sample Receipt Date: 10/17/2014      Test Start Date: 10/30/2014      10 day conditioning performed prior to 96 h testing.  
 Project ID: 14-177-01  
 Sample ID: Petrastone Engineered Stone, Manf Oct 1, 2014  
 Client: Tile Council of North America

		Temp 20-25 C; RH 45-55%						Standard Classroom Parameters			
		100 50L Chamber Air Flow, mL/min; 1 exchange rate = 833						Room Dimensions, ft			40x24x8.5
		50 Sample Size, square cm (15.24 cm 15.24)						Room Volume, m3			231
<b>ASTM D5116 Small Chamber Method</b>		1.20 Area Specific Flow rate (inlet flow m3/hr)/(surface area m3)						Ventilation Rate, ach			0.9
		0.1 Sample Loading Factor cm2/500 for 50L chamber						Net Surface Area, m2			89.2
<b>California Specification 01350</b>											
Paints and Wallcoverings Model: 94.6 m2											
Flooring Products Model: 89.2 m2											
Compound Name	11/10/14 24 hr Chamber Conc. ug/m3	Emission Factors (ug/(m2·h))						Cm Classroom: 24 hr Modeled Air Conc. ug/m3	Cm Classroom: 48 hr Modeled Air Conc. ug/m3	Cm Classroom: 96 hr Modeled Air Conc. ug/m3	1/2 CRE 12/2008 (A)Acut (C)Chro
		24 hr EF	48 hr EF	96 hr EF	11/11/14 48 hr Chamber Conc. ug/m3	11/13/14 96 hr Chamber Conc. ug/m3	96 hr EF				
<b>GC/MS Target, LOQ 2 ng/L (ug/m3)</b>											
142-82-5 Heptane	60.8	73.0	46.3	55.6	44.9	53.9	31.3	23.8	23.1		
1330-20-7 m/p-Xylenes	3.3	4.0	2.8	3.4	0	0.0	1.7	1.4	0.0	175 C	
100-42-5 Styrene	7.2	8.6	5.8	7.0	6.3	7.6	3.7	3.0	3.2	225 C	
<b>GC/MS TICs, LOQ 5 ng/L (ug/m3)</b>											
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0		
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0		
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0		
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0		
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0		
<b>HPLC Aldehydes, LOQ 2 ng/L (ug/m3)</b>											
Formaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	4.5 C	
Acetaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	70 C	
<b>TVOCs LOQ 25 ng/L (ug/m3) Use 1 for &lt; value</b>											
	71.3	85.6	54.9	65.9	51.2	61.4	36.7	28.3	26.4	ug/m3	
							0.037	0.028	0.026	mg/m3	
											Reporting Limit, 0.001 mg/m3

14-177 Chamber EmissionFactors.xls

