Moderne méthode
5 rue de la Bizière
ZI du Sauvoy
77165 Saint Soupplets
FRANCE

Eurofins Product Testing A/S
Smedeskovvej 38
8464 Galten
Denmark

voc@eurofins.com
www.eurofins.com/voc-testing

VOC Emissions Test report

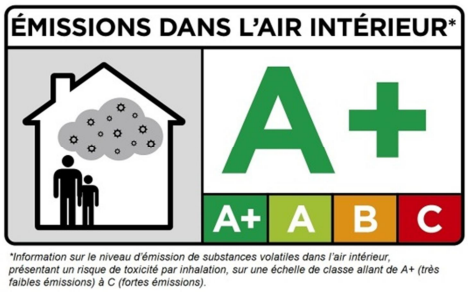
Date
28 November 2013

1. Sample Information

Sample identification	Système MM Beton ciré Ultra Polymére/Niv o Grip/Vernis Orethane
Product type	Wax system
Batch no.	
Production date	
Date when sample was received	13/09/2013
Testing (start - end)	23/10/2013 - 20/11/2013

2. Resulting VOC Emissions Class Label

This recommendation is based on French regulation of March 23, 2011 (décret DEVL1101903D) and of April 19, 2011 (arrêté DEVL1104875A). For details please see www.eurofins.com/france-voc



The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result. As specified in French Decree no. 2011-321 of March 23, 2011, correct assignment of the VOC emission class is the sole responsibility of the party responsible for distribution of the product in the French market.

3. Test Method

Method	Principle	Parameter	Quantification limit	Uncertainty
ISO 16000 parts -3, -6, -9, -11 Internal method numbers: 9810, 9811, 9812, 2808, 8400	GC/MS HPLC/UV	VOC Volatile alde-hydes	2 µg/m³ 3 µg/m³	22% (RSD) Um = 2 x RSD= 45 %

Test chamber parameter					
Chamber volume, l	119	Temperature, °C	23±1	Relative humidity, %	50±5
Air change rate, 1/h	0.5	Loading ratio, m²/m³	0.4		

Test condition: Sample stayed in test chamber during the whole 28 days testing period.

Sample preparation

Layer 1: Nivo grip (Nivo Grip/Ultra polymer) 20ml/40ml
Layer 2: Ultra polymer/ concrete finishing powder 20ml/40ml
Layer 3: Ultra polymer/ concrete finishing powder 20ml/40ml
Layer 4: Vernis (Compound A/Compound B) 15,4/4,6 g
Layer 5: Vernis (Compound A/Compound B) 15,4/4,6 g

Application amount, g/m²	701/501/504/46/42	Number of layers	5	Drying time, h	2/2/2/18

4. Results

	Concentration after 28 days µg/m³	C	B	A	A+
TVOC	42	>2000	<2000	<1500	<1000
Formaldehyde	3.7	>120	<120	<60	<10
Acetaldehyde	<3	>400	<400	<300	<200
Toluene	<2	>600	<600	<450	<300
Tetrachloroethylene	<2	>500	<500	<350	<250
Ethylbenzene	<2	>1500	<1500	<1000	<750
Xylene	<2	>400	<400	<300	<200
Styrene	<2	>500	<500	<350	<250
2-Butoxyethanol	<2	>2000	<2000	<1500	<1000
1,2,4-Trimethylbenzene	<2	>2000	<2000	<1500	<1000
1,4-Dichlorobenzene	<2	>120	<120	<90	<60

< Means less than
> Means higher than

Pascal Ge
Analytical Service Manager