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Through our consultant Jo Wynendaele

**Your notice of**  
01-07-2016

**Your reference**

**Date**  
25-10-2016

## **Analysis Report 16.03568.02**

Required tests :

**ISO 16000-3 (2011)**

**Quantitative determination of aldehydes (chamber method)**

**ISO 16000-6 (2011)**

**Emission of volatile organic compounds (chamber method)**

Identification number	Information given by the client	Date of receipt
T1613580	Floorify Rigid Vinyl Planks & Tiles	01-07-2016

Kristina De Temmerman

Order responsible

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The results of the analysis cover the received samples. Centexbel is not responsible for the representativeness of the samples.  
In assessing compliance with the specifications, we did not take into account the uncertainty on the test results.

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**Reference: T1613580 - Floorify Rigid Vinyl Planks & Tiles**

**Comments**

On the product Floorify Rigid Vinyl Planks & Tiles, our reference T1613580, delivered by Floorify we analysed the emission profile and we evaluated the results to the criteria mentioned in some national legislations regarding indoor air quality.

For determination and characterisation the following methods are used:

- Methods for the characterisation of emissions: ISO 16000 parts 9, 10 and 11
- Methods for sampling and analyses: ISO 16000 parts 6 and 3

Based on the outcome of the emission measurement we can conclude that the product Floorify Rigid Vinyl Planks & Tiles, our reference T1613580, fulfil the A+ criteria for VOC and VOC substances like described in the 'Décret Français' and also that the emission fulfils the legal criteria established in Belgium, Poland and Lithuania.

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Comments made by Jo Wynendaele

**Reference: T1613580 - Floorify Rigid Vinyl Planks & Tiles**

**Quantitative determination of aldehydes (chamber method)**

Date of ending the test 21-10-2016  
 Standard used ISO 16000-3 (2011)

Deviation from the standard

Sample preparation The sample is conditioned in a simulation room at 23°C and 50% R.H.

Residence time (in days) 3 days and 28 days

Air exchange rate 0.5 air exchange per hour

Sampling aldehydes Agbb are adsorbed on dinitrophenylhydrazine (DNPH) impregnated silica

Analytical method RP-HPLC (UV 360 nm)

Results

Determination limit 0.002 mg/m<sup>3</sup> for formaldehyde and acetaldehyde, 0.005 mg/m<sup>3</sup> for the other components

	3 days	28 days
	mg/m <sup>3</sup>	mg/m <sup>3</sup>
Formaldehyde	< 0.002	< 0.002
Acetaldehyde	< 0.002	< 0.002
Acrolein	< 0.005	< 0.005
Propionaldehyde	< 0.005	< 0.005
Crotonaldehyde	< 0.005	< 0.005
Butyraldehyde	< 0.005	< 0.005
Isovaleraldehyde	< 0.005	< 0.005
Valeraldehyde	< 0.005	< 0.005
Hexaldehyde	< 0.005	< 0.005
Pentenal	< 0.005	< 0.005
Glutaraldehyde	< 0.005	< 0.005

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Performed under accreditation in the chemical lab under the responsibility of Eddy Albrecht

**Reference: T1613580 - Floorify Rigid Vinyl Planks & Tiles****Emission of volatile organic compounds (chamber method)**

Date of ending the test	20-10-2016
Based on	ISO 16000-6 (2011)
Product standard	AgBB
Preparation	Centexbel, based on 16000 series and AgBB scheme 2012 Based on ISO 16000-11 : procedure of sampling, storage of samples and preparation of test specimens
Sample preparation after X days	3 days and 28 days
Sample preparation	Emission test chamber method (ISO 16000-9) at 23°C and 50% RH under ½ air exchange per hour. Sampling (under continuous ventilation) on Tenax TA
Analytical method	Volatile compounds are thermally desorbed, cryo-trapped and injected into a GC-MS.
Detection	Gas chromatography with Agilent MSD detector.
Quantification	Based on ISO 16000-6 (only mass spectrometer detection is suitable)
Requirements	Calculation of analyte concentrations (Ci), specific emission rates (SERai), TVOC. Also Ri and R values are calculated based on LCI (lowest concentrations of interest) values from Table 1 of AgBB 2012 scheme
Results	
Determination limit	5 µg/m <sup>3</sup>

### Sample identification

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#### Type of test method

Flec -  
Test-chamber x

#### Material of test chamber

Steel x  
Glass  
Other

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Test chamber volume	0,25 [m <sup>3</sup> ]
Area of sample	0,1 [m <sup>2</sup> ]
Air exchange rate	0,5 [h <sup>-1</sup> ]
Area specific air exchange rate q	1,25 [mh <sup>-1</sup> ]
Temperature	23 [°C]
Rel. humidity	50 [%]

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	Date
Insert of sample into the test chamber	19-08-16
Sampling after 3 days	22-08-16
Sampling after 28 days	16-09-16

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AgBB scheme	2012		
Results		3 Days [µg/m <sup>3</sup> ]	28 Days [µg/m <sup>3</sup> ]
TVOC (C6 - C16)		22,0	25,0
SVOC (C16 - C22)		0	9
R (w/o dimension)		0,01	0,01
Σ VOC w/o LCI		0	0
Σ Carcinogenics		0	0

Table 1: Summary of conditions and results of 3 and 28 day emission test

Annex 1

Annex.1\_report16.03568.02.pdf