Clayworks

VOC EMISSIONS REPORTS

Clayworks

VOC EMISSIONS REPORTS

Our Smooth, Rustic and Tadelakt finishes have all been rigorously tested using the following global schemes and accreditations:

INDOOR AIR COMFORT GOLD
Certification achieved: Low VOC Emissions
Certified to the highest standard for indoor air quality. Supports LEED, BREEAM & WELL.

CDPH
Certification achieved: US VOC Emission Standard
Complies with California's strict health-based criteria. Recognized by LEED.

LEED Attestation
Certification achieved: LEED Contributions
Our products contribute to low-emitting materials, material disclosure, and more.

BREEAM
Certification achieved: UK Green Building Compliance
Verified for BREEAM credits in health, materials, and sustainability.

WELL
Certification achieved: Wellbeing and Air Quality
Contributes to healthier spaces through low-VOC and natural material content.

Material Content Report
Certification achieved: Emission Compliance
Providing transparency and assurance of indoor air quality performance.

Clayworks

VOC EMISSIONS REPORTS

CONTENTS PAGE

Clayworks

VOC EMISSIONS REPORTS

CONTENTS PAGE

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

VOC EMISSION TEST REPORT
Indoor Air Comfort GOLD

2 May 2025

1 Sample Information

Sample name	Clayworks Smooth Finish
Batch no.	-
Stated production date	03/01/2025
Product type	Mineral- and dispersion-based finishing and top plaster (GEV 8.2)
Sample reception	18/03/2025

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
French VOC Regulation	A+	Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 (DEVL1133129A)
French CMR components	Pass	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)
Italian CAM Edilizia	Pass	DM 23 giugno 2022 n. 256, GURI n. 183 del 6 agosto 2022
ABG/AgBB	Pass	Ausschuss zur gesundheitlichen Bewertung von Bauprodukten (September 2024)
Belgian Regulation	Pass	Royal decree of May 2014 (C-2014/24239)
EMICODE	EC 1 PLUS	February 2025
Indoor Air Comfort	Pass	Indoor Air Comfort 9.0 of June 2023
Indoor Air Comfort GOLD	Pass	Indoor Air Comfort GOLD 9.0 of June 2023
Blue Angel (DE-UZ 198)	Pass	DE-UZ 198 for “Low-Emission Internal Plasters”, January 2019
BREEAM International	Exemplary Level	BREEAM International New Construction v6.0 (2021)
BREEAM NOR	Exemplary Level	BREEAM NOR v6.1.1 New Construction (2024)
EU Taxonomy	Pass	Regulation (EU) 2020/852 of the European Parliament and of the Council

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix
Due to the registered deviations, please refer to section 4.4

Isabella B. Larsen
Analytical Service Manager

Janne Rothmann Norup
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty¤ [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
Specifications Indoor Air Comfort Gold	9.0 of June 2023	5	Toluene equivalents	22%
French VOC Classes	Decree of 03/2011 (DEVL1101903D) and arrêté of 02/2012 (DEVL1133129A)	2	Toluene equivalents	22%
French CMR	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)	1	Toluene equivalents	22%
Italian CAM Edilizia	Regulation 23 June 2022 and decree 6 August 2022	2	Toluene equivalents	22%
AgBB (MVV TB/ABG)	September 2024 (2024/2022)	5	Compound Specific	22%
Belgian VOC	Royal decree of May 2014 (C - 2014 / 24239)	5	Toluene equivalents	22%
EMICODE	February 2025	5	Toluene equivalents	22%
BREEAM NOR	BREEAM NOR v6.1.1 New Construction (2024)	5	Toluene equivalents	22%
BREEAM International	BREEAM International New Construction v6.0 (2021)	5	Toluene equivalents	22%
LEED v4.1 BETA (outside U.S.)	February 2024	5	Compound Specific	22%
EU Taxonomy	Regulation (EU) 2020/852; Annex 1/2 section 7.1 and 7.2	-	-	22%
Blue Angel (DE-UZ 198)	January 2019	5	Compound Specific	22%

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty¤ [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, AgBB:2024, EMICODE:2022	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
Sampling of phthalates*	ISO 16000-33:2017, MEL-09:2003	71M549812	60 L	Florisil	-
Analysis of phthalates*	ISO 16000-33:2017	71M546060	0.6 µg/m³	GC/MS	10%

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	25/03/2025 - 11:02
Air change rate, n[h^{-1}]	0.5	Preconditioning period	25/03/2025 - 28/03/2025
Air Velocity [m/s]	0.1	Chamber test period	28/03/2025 - 25/04/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	25/03/2025 - 30/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

4

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for 72 hours before it was transferred to the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A:Water	Drying time, h
1	2500	300 : 60	-

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4.3 Picture of Sample

4.4 Deviations from Referenced Protocols and Regulations

The sample arrived in the laboratory more than the specified 14 days after the date of sampling.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
3 Day, DNPH silicagel	2025-03-31	10:45 - 12:35	36
3 Day-Res, DNPH silicagel	2025-03-31	10:46 - 12:36	36
3 Day, Tenax TA	2025-03-31	10:47 - 11:47	5.2
3 Day-Res, Tenax TA	2025-03-31	11:48 - 12:36	2.1
28 Day, Florisil	2025-04-25	07:15 - 09:45	60
28 Day-Res, Florisil	2025-04-25	07:15 - 09:45	60
28 Day, DNPH silicagel	2025-04-25	10:01 - 11:49	36
28 Day-Res, DNPH silicagel	2025-04-25	10:01 - 11:49	35
28 Day, Tenax TA	2025-04-25	10:01 - 11:00	5.2
28 Day-Res, Tenax TA	2025-04-25	11:00 - 11:49	2.2

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 3 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

6

5.2 VOC Emission Test Results after 28 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
CMR (French reg.)								
Benzene	71-43-2		1	< 1		< 1		
Trichloroethylene	79-01-6		1	< 1		< 1		
Dibutylphthalate (DBP)*	84-74-2		1	< 1		< 1		
Diethylhexylphthalate (DEHP)*	117-81-7		1	< 1		< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

7

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
TVOC (French label)					< 2			
Toluene	108-88-3			< 2	< 2	< 1		
Tetrachloroethylene *	127-18-4			< 2	< 2	< 1		
Ethylbenzene	100-41-4			< 2	< 2	< 1		
Xylene *	1330-20-7			< 2	< 2	< 1		
Styrene	100-42-5			< 2	< 2	< 1		
2-Butoxyethanol	111-76-2			< 2	< 2	< 1		
1,2,4-Trimethylbenzene	95-63-6			< 2	< 2	< 1		
1,4-Dichlorobenzene	106-46-7			< 2	< 2	< 1		

8

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of the French VOC Regulation

	CAS No.	Conc. 28 days µg/m³	C µg/m³	B µg/m³	A µg/m³	A+ µg/m³
TVOC	-	< 2	> 2000	< 2000	< 1500	< 1000
Formaldehyde	50-00-0	< 3	> 120	< 120	< 60	< 10
Acetaldehyde	75-07-0	< 3	> 400	< 400	< 300	< 200
Toluene	108-88-3	< 2	> 600	< 600	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	> 500	< 500	< 350	< 250
Ethylbenzene	100-41-4	< 2	> 1500	< 1500	< 1000	< 750
Xylene *	1330-20-7	< 2	> 400	< 400	< 300	< 200
Styrene	100-42-5	< 2	> 500	< 500	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	> 2000	< 2000	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	> 2000	< 2000	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	> 120	< 120	< 90	< 60

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.

9

6.2 Comparison with Limit Values of the CMR Components

CMR (French reg.)	CAS No.	Conc. 28 days µg/m³	Max. allowed air concentration µg/m³
Benzene	71-43-2	< 1	< 1
Trichloroethylene	79-01-6	< 1	< 1
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.3 Comparison with Limit Values of the Italian CAM Regulation

	CAS No.	Conc. 28 days µg/m³	Limit value 28 days µg/m³	Limit value Rewarding score 28 day µg/m³
TVOC	-	< 2	< 1500	< 1000
Formaldehyde	50-00-0	< 3	< 60	< 10
Acetaldehyde	75-07-0	< 3	< 300	< 200
Toluene	108-88-3	< 2	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	< 350	< 250
Ethylbenzene	100-41-4	< 2	< 1000	< 750
Xylene *	1330-20-7	< 2	< 300	< 200
Styrene	100-42-5	< 2	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	< 90	< 60
Benzene	71-43-2	< 1	< 1	
Trichloroethylene	79-01-6	< 1	< 1	
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1	
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1	

The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result.

10

6.4 Comparison with Limit Values of AgBB/ABG

Parameters	Test after 3 days		Test after 28 days	
	Concentration mg/m³	Limit Value mg/m³	Concentration mg/m³	Limit Value mg/m³
TVOC	< 0.005	≤ 10	< 0.005	≤ 1.0
TSVOC	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Formaldehyde	-	-	< 0.003	≤ 0.1
Any individual carcinogens	< 0.001	≤ 0.01	< 0.001	≤ 0.001

Compliance with the limits alone does not replace an approval or voluntary documentation by a Technical Assessment Body according to the Construction Product Regulation. This requires an application and approval.

6.5 Comparison with Limit Values of the Belgian Regulation

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC (EN 16516)	< 5	≤ 1000
TSVOC	< 5	≤ 100
R-value (dimensionless)	0	≤ 1
Total carcinogens	< 1	≤ 1
Toluene	< 5	≤ 300
Formaldehyde	< 3	≤ 100
Acetaldehyde	< 3	≤ 200

11

6.6 Comparison with Limit Values of LEED v4.1 BETA

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC	< 5	≤ 1000
Sum of VOC without NIK/LCI	< 5	< 100
Formaldehyde	< 3	≤ 10
R-value (dimensionless)	0	≤ 1

This evaluation only concerns the emission requirements of LEED v4.1 BETA. In order to satisfy the credit on “Low-Emitting Material” according to the requirements of LEED v4.1 BETA (February 2024), the product must also show compliance with the VOC content requirements.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.7 Comparison with Limit Values of BREEAM NOR

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 0.3	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

6.8 Comparison with Limit Values of BREEAM International

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 1.0	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

6.9 Comparison with Limit Values of EU Taxonomy

Parameters	Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³
Formaldehyde	< 0.002	≤ 0.06
Any individual carcinogens	< 0.001	< 0.001

The formaldehyde emission is tested according to EN 16516 with air change rate 0.5 /h and relative humidity of 50 ± 5 %. Results have been recalculated to a loading of 1 m²/m³ and air change rate of 1 /h.

12

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.10 Comparison with Limit Values of Indoor Air Comfort

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	**Limit Value** µg/m³	**Concentration** µg/m³	**Limit Value** µg/m³
TVOC (EN 16516)	< 5	≤ 10000	< 5	≤ 1000
TSVOC	< 5	-	< 5	≤ 100
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 100
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	≤ 1
Formaldehyde	< 3	-	< 3	≤ 60
Acetaldehyde	< 3	-	< 3	≤ 200
French A+/A	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

13

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.11 Comparison with Limit Values of Indoor Air Comfort Gold

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³	Concentration µg/m³	Limit Value µg/m³
TVOC (EN 16516)	< 5	≤ 750	< 5	≤ 60
TSVOC	< 5	-	< 5	≤ 30
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 40
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	< 1
Formaldehyde	< 3	≤ 50	< 3	< 10
Acetaldehyde	< 3	≤ 50	< 3	≤ 50
Sum Formaldehyde + Acetaldehyde [ppb]	< 5	≤ 50	-	-
Propionaldehyde	-	-	< 3	≤ 60
Butyraldehyde	-	-	< 3	≤ 60
French A+	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort GOLD label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

14

6.12 Comparison with Limit Values of EMICODE

Parameters	Concentration µg/m³	EC 2 µg/m³	EC 1 µg/m³	EC 1 PLUS µg/m³
TVOC 3 days (EN 16516)	< 5	≤ 3000	≤ 1000	≤ 750
TVOC 28 days (EN 16516)	< 5	≤ 300	≤ 100	≤ 60
TSVOC 28 days (EN 16516)	< 5	≤ 100	≤ 50	≤ 40
Sum without NIK/LCI 28 days	< 5	> 40		≤ 40
R-value 28 days (dimensionless)	0	> 1	≤ 1	
Formaldehyde 3 days	< 3	≤ 50		
Acetaldehyde 3 days	< 3	≤ 50		
Sum Formaldehyde + Acetaldehyde [ppm] 3 days	< 0.005	≤ 0.05		
Formaldehyde 28 days	< 3	≤ 10		
Sum carcinogens 3 days	< 1	≤ 10		
Sum carcinogens 28 days	< 1	≤ 1		

This test report does not alone entitle to use the protected trademark label EMICODE. For the use of an EMICODE label a license has to be applied for at the GEV, Düsseldorf, Germany. A license can only be granted for ready-to use products, if some additional requirements on contents of certain chemicals (e.g. solvent-free) are fulfilled.

15

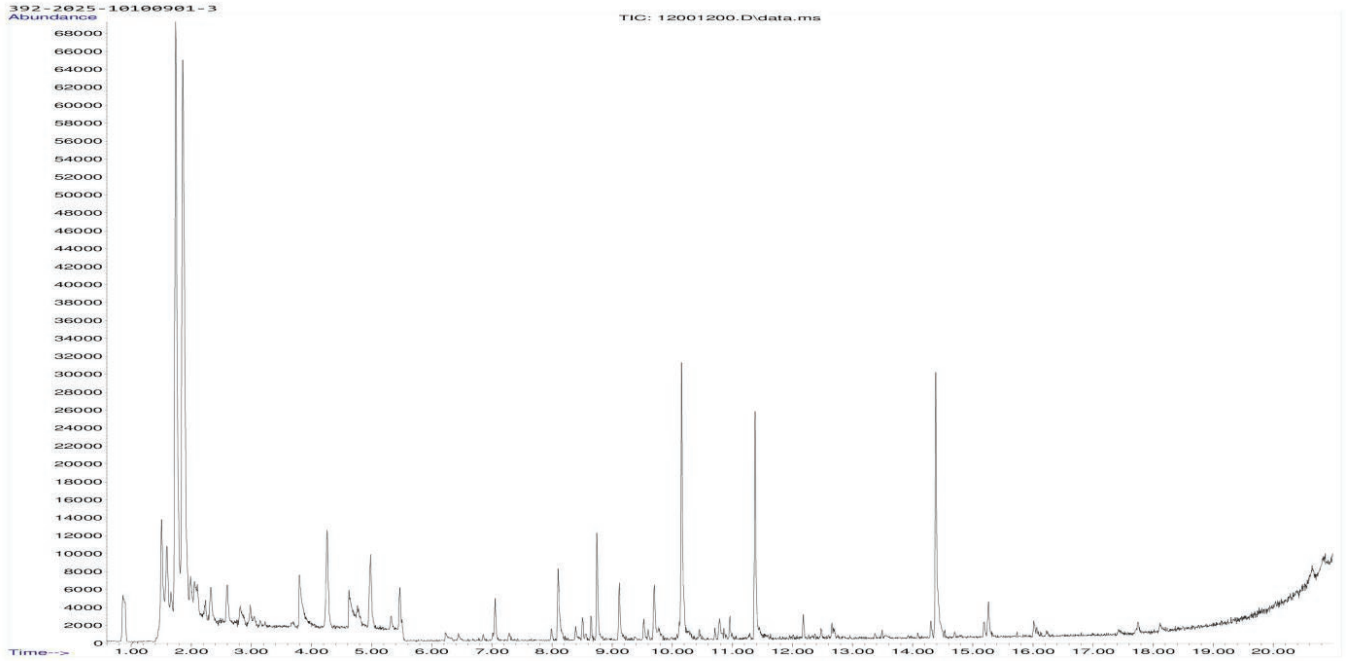
6.13 Comparison with Limit Values of Blue Angel (DE-UZ 198)

	Test after 3 days		Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³	**Concentration** mg/m³	**Limit Value** mg/m³
TVOC with SVOC with NIK	< 0.005	≤ 3.0	< 0.005	≤ 0.3
TSVOC w/o SVOCs with NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Total carcinogens	< 0.001	≤ 0.01	-	-
Any individual carcinogens	-	-	< 0.001	≤ 0.001
Formaldehyde [µg/m³]	-	-	< 3	≤ 60
Acetaldehyde [µg/m³]	-	-	< 3	≤ 120

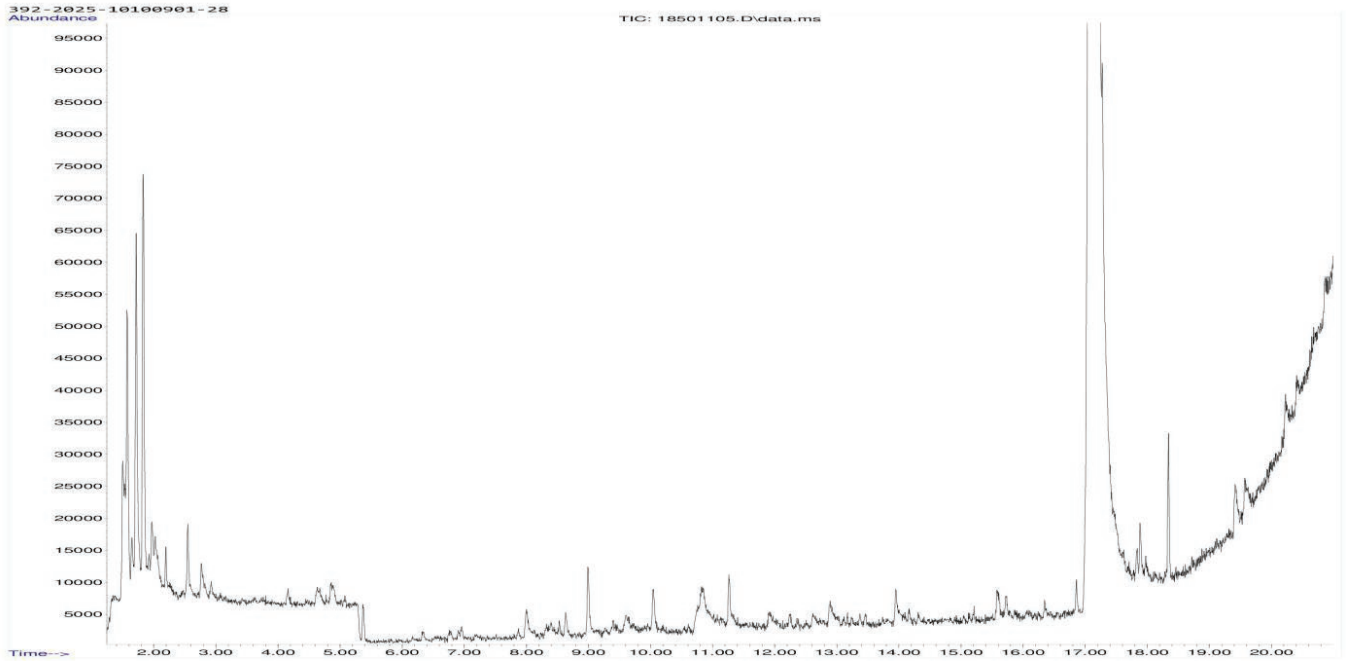
The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7 Appendices

7.1 Chromatogram of VOC Emissions after 3 Days



7.2 Chromatogram of VOC Emissions after 28 Days



Please consider the different scales.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.3 Sampling Report

Combined Sampling Report and Chain of Custody			
Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326 341 339		
Product information			
Name of the product:	Clayworks Smooth Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom
Production & Sampling information			
Production Date: **Time:**	03/01/2025	**Sampling Date:** **Time:**	20/02/2025
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	
Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).			
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):			
Confirmation from the applicant			
Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.			
Date:	**Signature:**		

17

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

	(Stamp) Clayworks … VAT no. GB 986755351 … EORI. GB986755351000 … Ltd Company Reg No: …

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	24/02/25	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.): 25/2-25 - OK, 392-2025-00100901

Receptionist, Eurofins Product Testing A/S:	Signature of receptionist:
KGF3	

18

7.4 How to Understand the Results

7.4.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.4.2 Explanation of ID Category

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.5 Applied LCI and NIK Values

7.5.1 LCI/NIK Values for Compounds found after 3 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

7.5.2 LCI/NIK Values for Compounds found after 28 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

20

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6 Description of VOC Emission Test

7.6.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.6.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.6.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.6.4 Testing of VOC, SVOC and VVOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

All single substances that are listed with a LCI/NIK value in the latest publications (hereafter referred to as target compounds) are identified if present. All other appearing VOCs are identified as far as possible. Quantification of target compounds is done using the TIC signal and authentic response factors, or the relative response factors relative to toluene. For certain compound groups, which differ significantly in chemistry from toluene, quantification is performed relative to a representative member of the group for more accurate and precise results. This can include quantification of for example glycols and acids. In addition to that, all results are also expressed in toluene equivalents. All non-target compounds, as well as all non-identified substances, are quantified in toluene equivalents.

The results of the individual substances are calculated in three groups depending on their retention time when analyzing using a non-polar column (HP-1):

- Volatile Organic Compounds (VOC) are defined as: All substances eluting between and including n-hexane (n-C6) and n-hexadecane (n-C16)

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

- Semi-Volatile Organic Compounds (SVOC) are defined as: All substances eluting after n-hexadecane (n-C16) and before and including n-docosane (n-C22)
- Very Volatile Organic Compounds (VVOC) are defined as: All substances eluting before n-hexane (n-C6).

Total Volatile Organic Compounds (TVOC) is calculated by summation of all individual VOCs with a concentration ≥ 5 µg/m³. The TVOC can be expressed either in toluene equivalents as defined in EN 16516 and similar to ISO 16000-6, or as the sum of concentrations using specific or relative response factors. In the case of summation of concentrations using authentic or relative response factors, the toluene equivalent is applied to all non-target and non-identified VOCs before summing up. Compounds regarded as VOC in line with the above definition but elute before n-C6 or after n-C16 on the HP-5 column are treated as VOC, and are thus added to the TVOC.

Total Semi-Volatile Organic Compounds (TSVOC) is calculated by the summation of all individual SVOCs expressed in toluene equivalents with a concentration ≥ 5 µg/m³, as defined in EN 16516. VOCs that are regarded as VOC in line with the above definition, but elute after n-C16 in this test, are not added to the TSVOC.

Total Very Volatile Organic Compounds (TVVOC) is calculated by the summation of all individual VVOCs with a concentration ≥ 5 µg/m³ and expressed in toluene equivalents. VOCs that are regarded as VOC in line with the above definition, but elute before n-C6 in this test, are not added to the TVVOC.

This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

22

7.6.5 Calculation of R Values with LCI Lists

The concentrations of detected compounds ≥ 5 µg/m³ are divided by their respective LCI/NIK value (if defined in the given publication). The sum of the quotients gives the R value, which can be mathematically expressed:

$$R = \sum_{i}^{n} \left({}^{c_i}/_{NIK_i} + \ldots + {}^{c_n}/_{NIK_n} \right)$$

This R value is calculated, depending on the purpose of this test, for the European LCI list, for the German LCI/NIK list (R_D), and/or for the Belgian LCI list (R_B).

All VOCs without published LCI/NIK value and concentration ≥ 5 µg/m³ are summed up as sum of VOCs without LCI/NIK if required by the standard or protocol.

7.6.6 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6.7 Testing of Phthalates

The presence of phthalates is tested by drawing air samples from the test chamber outlet through tube with Florisil adsorbent after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by GC/MS. Analysis of phthalates is not currently covered by the accreditation (Internal methods no.: 71M549812 / 71M546060).

7.7 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.8 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3.

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.9 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.10 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.11 Version History

Report date	Report number	Modification
02/05/2025	392-2025-10100901_A_EN	Current version

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

VOC EMISSION TEST REPORT
Indoor Air Comfort GOLD

5 May 2025

1 Sample Information

Sample name	Clayworks Rustic Finish
Batch no.	-
Stated production date	03/01/2025
Product type	Mineral- and dispersion-based finishing and top plaster
Sample reception	18/03/2025

2 Brief Evaluation of the Results

25

Regulation or protocol	Conclusion	Version of regulation or protocol
French VOC Regulation	A+	Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 (DEVL1133129A)
French CMR components	Pass	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)
Italian CAM Edilizia	Pass	DM 23 giugno 2022 n. 256, GURI n. 183 del 6 agosto 2022
ABG/AgBB	Pass	Ausschuss zur gesundheitlichen Bewertung von Bauprodukten (September 2024)
Belgian Regulation	Pass	Royal decree of May 2014 (C-2014/24239)
EMICODE	EC 1 PLUS	February 2025
Indoor Air Comfort	Pass	Indoor Air Comfort 9.0 of June 2023
Indoor Air Comfort GOLD	Pass	Indoor Air Comfort GOLD 9.0 of June 2023
Blue Angel (DE-UZ 198)	Pass	DE-UZ 198 for “Low-Emission Internal Plasters”, January 2019
BREEAM International	Exemplary Level	BREEAM International New Construction v6.0 (2021)
BREEAM NOR	Exemplary Level	BREEAM NOR v6.1.1 New Construction (2024)
EU Taxonomy	Pass	Regulation (EU) 2020/852 of the European Parliament and of the Council

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

26

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty¤ [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
Specifications Indoor Air Comfort Gold	9.0 of June 2023	5	Toluene equivalents	22%
French VOC Classes	Decree of 03/2011 (DEVL1101903D) and arrêté of 02/2012 (DEVL1133129A)	2	Toluene equivalents	22%
French CMR	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)	1	Toluene equivalents	22%
Italian CAM Edilizia	Regulation 23 June 2022 and decree 6 August 2022	2	Toluene equivalents	22%
AgBB (MVV TB/ABG)	September 2024 (2024/2022)	5	Compound Specific	22%
Belgian VOC	Royal decree of May 2014 (C - 2014 / 24239)	5	Toluene equivalents	22%
EMICODE	February 2025	5	Toluene equivalents	22%
BREEAM NOR	BREEAM NOR v6.1.1 New Construction (2024)	5	Toluene equivalents	22%
BREEAM International	BREEAM International New Construction v6.0 (2021)	5	Toluene equivalents	22%
LEED v4.1 BETA (outside U.S.)	February 2024	5	Compound Specific	22%
EU Taxonomy	Regulation (EU) 2020/852; Annex 1/2 section 7.1 and 7.2	-	-	22%
Blue Angel (DE-UZ 198)	January 2019	5	Compound Specific	22%

27

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty¤ [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, AgBB:2024, EMICODE:2022	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
Sampling of phthalates*	ISO 16000-33:2017, MEL-09:2003	71M549812	60 L	Florisil	-
Analysis of phthalates*	ISO 16000-33:2017	71M546060	0.6 µg/m³	GC/MS	10%

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	25/03/2025 - 09:33
Air change rate, n[h^{-1}]	0.5	Preconditioning period	25/03/2025 - 28/03/2025
Air Velocity [m/s]	0.1	Chamber test period	28/03/2025 - 25/04/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	25/03/2025 - 30/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

28

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for three days before it was transferred into the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A: Water	Drying time, h
1	2500	1000 : 200	-

4.3 Picture of Sample

4.4 Deviations from Referenced Protocols and Regulations

No deviations from the referenced test methods were observed.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
3 Day, DNPH silicagel	2025-03-31	10:44 - 12:35	37
3 Day-Res, DNPH silicagel	2025-03-31	10:44 - 12:35	37
3 Day, Tenax TA	2025-03-31	10:45 - 11:46	5.4
3 Day-Res, Tenax TA	2025-03-31	11:46 - 12:36	2.2
28 Day, Florisil	2025-04-25	07:19 - 09:50	60
28 Day-Res, Florisil	2025-04-25	07:20 - 09:50	60
28 Day, DNPH silicagel	2025-04-25	10:06 - 11:55	36
28 Day-Res, DNPH silicagel	2025-04-25	10:06 - 11:55	36
28 Day, Tenax TA	2025-04-25	10:07 - 11:07	5.3
28 Day-Res, Tenax TA	2025-04-25	11:07 - 11:55	2.2

29

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 3 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

30

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5.2 VOC Emission Test Results after 28 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
CMR (French reg.)								
Benzene	71-43-2		1	< 1		< 1		
Trichloroethylene	79-01-6		1	< 1		< 1		
Dibutylphthalate (DBP)*	84-74-2		1	< 1		< 1		
Diethylhexylphthalate (DEHP)*	117-81-7		1	< 1		< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
TVOC (French label)					< 2			
Toluene	108-88-3			< 2	< 2	< 1		
Tetrachloroethylene *	127-18-4			< 2	< 2	< 1		
Ethylbenzene	100-41-4			< 2	< 2	< 1		
Xylene *	1330-20-7			< 2	< 2	< 1		
Styrene	100-42-5			< 2	< 2	< 1		
2-Butoxyethanol	111-76-2			< 2	< 2	< 1		
1,2,4-Trimethylbenzene	95-63-6			< 2	< 2	< 1		
1,4-Dichlorobenzene	106-46-7			< 2	< 2	< 1		

32

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of the French VOC Regulation

	CAS No.	Conc. 28 days µg/m³	C µg/m³	B µg/m³	A µg/m³	A+ µg/m³
TVOC	-	< 2	> 2000	< 2000	< 1500	< 1000
Formaldehyde	50-00-0	< 3	> 120	< 120	< 60	< 10
Acetaldehyde	75-07-0	< 3	> 400	< 400	< 300	< 200
Toluene	108-88-3	< 2	> 600	< 600	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	> 500	< 500	< 350	< 250
Ethylbenzene	100-41-4	< 2	> 1500	< 1500	< 1000	< 750
Xylene *	1330-20-7	< 2	> 400	< 400	< 300	< 200
Styrene	100-42-5	< 2	> 500	< 500	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	> 2000	< 2000	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	> 2000	< 2000	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	> 120	< 120	< 90	< 60

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.

6.2 Comparison with Limit Values of the CMR Components

CMR (French reg.)	CAS No.	Conc. 28 days µg/m³	Max. allowed air concentration µg/m³
Benzene	71-43-2	< 1	< 1
Trichloroethylene	79-01-6	< 1	< 1
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.3 Comparison with Limit Values of the Italian CAM Regulation

	CAS No.	Conc. 28 days µg/m³	Limit value 28 days µg/m³	Limit value Rewarding score 28 day µg/m³
TVOC	-	< 2	< 1500	< 1000
Formaldehyde	50-00-0	< 3	< 60	< 10
Acetaldehyde	75-07-0	< 3	< 300	< 200
Toluene	108-88-3	< 2	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	< 350	< 250
Ethylbenzene	100-41-4	< 2	< 1000	< 750
Xylene *	1330-20-7	< 2	< 300	< 200
Styrene	100-42-5	< 2	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	< 90	< 60
Benzene	71-43-2	< 1	< 1	
Trichloroethylene	79-01-6	< 1	< 1	
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1	
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1	

The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result.

34

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.4 Comparison with Limit Values of AgBB/ABG

Parameters	Test after 3 days		Test after 28 days	
	Concentration mg/m³	Limit Value mg/m³	Concentration mg/m³	Limit Value mg/m³
TVOC	< 0.005	≤ 10	< 0.005	≤ 1.0
TSVOC	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Formaldehyde	-	-	< 0.003	≤ 0.1
Any individual carcinogens	< 0.001	≤ 0.01	< 0.001	≤ 0.001

Compliance with the limits alone does not replace an approval or voluntary documentation by a Technical Assessment Body according to the Construction Product Regulation. This requires an application and approval.

6.5 Comparison with Limit Values of the Belgian Regulation

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC (EN 16516)	< 5	≤ 1000
TSVOC	< 5	≤ 100
R-value (dimensionless)	0	≤ 1
Total carcinogens	< 1	≤ 1
Toluene	< 5	≤ 300
Formaldehyde	< 3	≤ 100
Acetaldehyde	< 3	≤ 200

35

6.6 Comparison with Limit Values of LEED v4.1 BETA

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC	< 5	≤ 1000
Sum of VOC without NIK/LCI	< 5	< 100
Formaldehyde	< 3	≤ 10
R-value (dimensionless)	0	≤ 1

This evaluation only concerns the emission requirements of LEED v4.1 BETA. In order to satisfy the credit on “Low-Emitting Material” according to the requirements of LEED v4.1 BETA (February 2024), the product must also show compliance with the VOC content requirements.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.7 Comparison with Limit Values of BREEAM NOR

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 0.3	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

6.8 Comparison with Limit Values of BREEAM International

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 1.0	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

36

6.9 Comparison with Limit Values of EU Taxonomy

Parameters	Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³
Formaldehyde	< 0.002	≤ 0.06
Any individual carcinogens	< 0.001	< 0.001

The formaldehyde emission is tested according to EN 16516 with air change rate 0.5 /h and relative humidity of 50 ± 5 %. Results have been recalculated to a loading of 1 m²/m³ and air change rate of 1 /h.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.10 Comparison with Limit Values of Indoor Air Comfort

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	**Limit Value** µg/m³	**Concentration** µg/m³	**Limit Value** µg/m³
TVOC (EN 16516)	< 5	≤ 10000	< 5	≤ 1000
TSVOC	< 5	-	< 5	≤ 100
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 100
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	≤ 1
Formaldehyde	< 3	-	< 3	≤ 60
Acetaldehyde	< 3	-	< 3	≤ 200
French A+/A	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

37

6.11 Comparison with Limit Values of Indoor Air Comfort Gold

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	**Limit Value** µg/m³	**Concentration** µg/m³	**Limit Value** µg/m³
TVOC (EN 16516)	< 5	≤ 750	< 5	≤ 60
TSVOC	< 5	-	< 5	≤ 30
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 40
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	< 1
Formaldehyde	< 3	≤ 50	< 3	< 10
Acetaldehyde	< 3	≤ 50	< 3	≤ 50
Sum Formaldehyde + Acetaldehyde [ppb]	< 5	≤ 50	-	-
Propionaldehyde	-	-	< 3	≤ 60
Butyraldehyde	-	-	< 3	≤ 60
French A+	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort GOLD label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

38

6.12 Comparison with Limit Values of EMICODE

Parameters	Concentration µg/m³	EC 2 µg/m³	EC 1 µg/m³	EC 1 PLUS µg/m³
TVOC 3 days (EN 16516)	< 5	≤ 3000	≤ 1000	≤ 750
TVOC 28 days (EN 16516)	< 5	≤ 300	≤ 100	≤ 60
TSVOC 28 days (EN 16516)	< 5	≤ 100	≤ 50	≤ 40
Sum without NIK/LCI 28 days	< 5	> 40		≤ 40
R-value 28 days (dimensionless)	0	> 1	≤ 1	
Formaldehyde 3 days	< 3	≤ 50		
Acetaldehyde 3 days	< 3	≤ 50		
Sum Formaldehyde + Acetaldehyde [ppm] 3 days	< 0.005	≤ 0.05		
Formaldehyde 28 days	< 3	≤ 10		
Sum carcinogens 3 days	< 1	≤ 10		
Sum carcinogens 28 days	< 1	≤ 1		

This test report does not alone entitle to use the protected trademark label EMICODE. For the use of an EMICODE label a license has to be applied for at the GEV, Düsseldorf, Germany. A license can only be granted for ready-to use products, if some additional requirements on contents of certain chemicals (e.g. solvent-free) are fulfilled.

39

6.13 Comparison with Limit Values of Blue Angel (DE-UZ 198)

	Test after 3 days		Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³	**Concentration** mg/m³	**Limit Value** mg/m³
TVOC with SVOC with NIK	< 0.005	≤ 3.0	< 0.005	≤ 0.3
TSVOC w/o SVOCs with NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Total carcinogens	< 0.001	≤ 0.01	-	-
Any individual carcinogens	-	-	< 0.001	≤ 0.001
Formaldehyde [µg/m³]	-	-	< 3	≤ 60
Acetaldehyde [µg/m³]	-	-	< 3	≤ 120

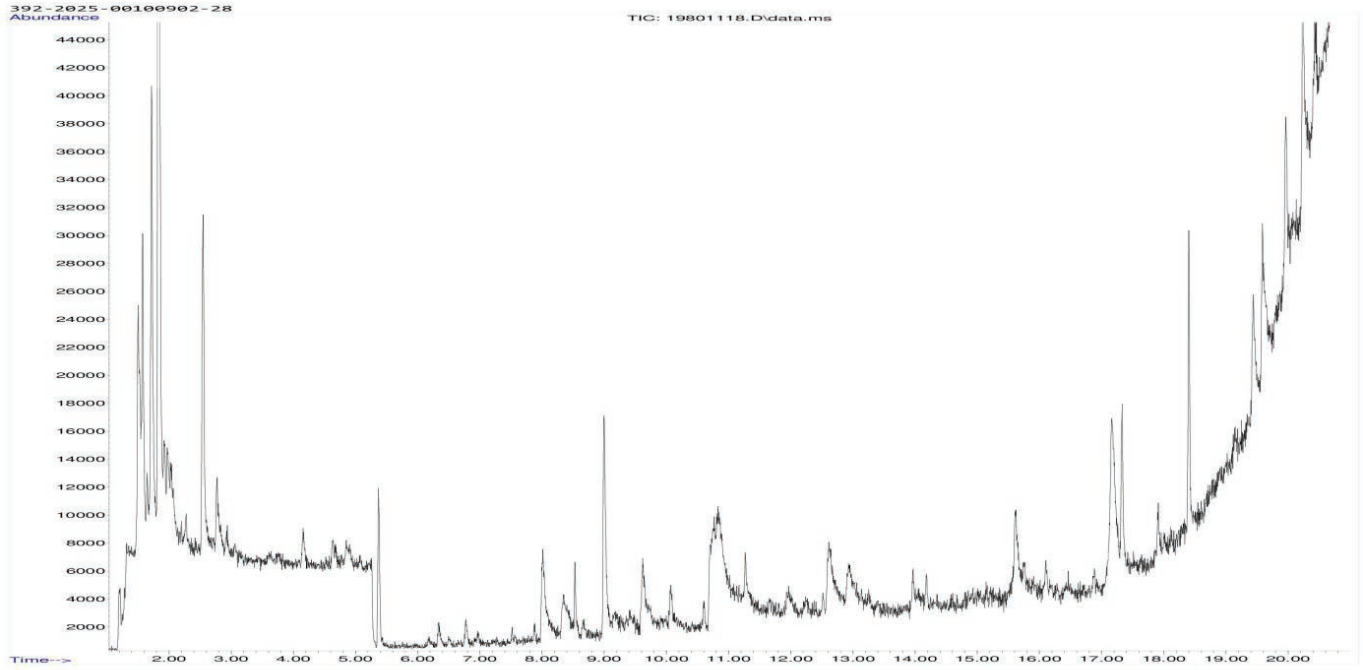
The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7 Appendices

7.1 Chromatogram of VOC Emissions after 3 Days

40

7.2 Chromatogram of VOC Emissions after 28 Days



Please consider the different scales.

7.3 Sampling Report

Combined Sampling Report and Chain of Custody			
Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326341339		
Product information			
Name of the product:	Clayworks Rustic Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom
Production & Sampling information			
Production Date: **Time:**	10/03/25	**Sampling Date:** **Time:**	14/03/25
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	
Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).			
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):			
Confirmation from the applicant			
Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.			
Date:	**Signature:**		

41

(Stamp)

Clayworks
info@clay-works.com
+44 (0)1326 341339
clay-works.com
Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, UK TR12 7AZ
VAT no. GB 986755351
EORI. GB986755351000
Ltd Company Reg No: 4552140

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	17/03/2025	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.):	18/3-2025, OK 392-2025-00100902+05
Receptionist, Eurofins Product Testing A/S:	**Signature of receptionist:**

42

7.4 How to Understand the Results

7.4.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.4.2 Explanation of ID Category

43

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.5 Applied LCI and NIK Values

7.5.1 LCI/NIK Values for Compounds found after 3 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

7.5.2 LCI/NIK Values for Compounds found after 28 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

44

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6 Description of VOC Emission Test

7.6.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.6.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.6.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

45

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.6.4 Testing of VOC, SVOC and VVOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

All single substances that are listed with a LCI/NIK value in the latest publications (hereafter referred to as target compounds) are identified if present. All other appearing VOCs are identified as far as possible. Quantification of target compounds is done using the TIC signal and authentic response factors, or the relative response factors relative to toluene. For certain compound groups, which differ significantly in chemistry from toluene, quantification is performed relative to a representative member of the group for more accurate and precise results. This can include quantification of for example glycols and acids. In addition to that, all results are also expressed in toluene equivalents. All non-target compounds, as well as all non-identified substances, are quantified in toluene equivalents.

The results of the individual substances are calculated in three groups depending on their retention time when analyzing using a non-polar column (HP-1):

- Volatile Organic Compounds (VOC) are defined as: All substances eluting between and including n-hexane (n-C6) and n-hexadecane (n-C16)

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

- Semi-Volatile Organic Compounds (SVOC) are defined as: All substances eluting after n-hexadecane (n-C16) and before and including n-docosane (n-C22)
- Very Volatile Organic Compounds (VVOC) are defined as: All substances eluting before n-hexane (n-C6).

Total Volatile Organic Compounds (TVOC) is calculated by summation of all individual VOCs with a concentration ≥ 5 µg/m³. The TVOC can be expressed either in toluene equivalents as defined in EN 16516 and similar to ISO 16000-6, or as the sum of concentrations using specific or relative response factors. In the case of summation of concentrations using authentic or relative response factors, the toluene equivalent is applied to all non-target and non-identified VOCs before summing up. Compounds regarded as VOC in line with the above definition but elute before n-C6 or after n-C16 on the HP-5 column are treated as VOC, and are thus added to the TVOC.

Total Semi-Volatile Organic Compounds (TSVOC) is calculated by the summation of all individual SVOCs expressed in toluene equivalents with a concentration ≥ 5 µg/m³, as defined in EN 16516. VOCs that are regarded as VOC in line with the above definition, but elute after n-C16 in this test, are not added to the TSVOC.

Total Very Volatile Organic Compounds (TVVOC) is calculated by the summation of all individual VVOCs with a concentration ≥ 5 µg/m³ and expressed in toluene equivalents. VOCs that are regarded as VOC in line with the above definition, but elute before n-C6 in this test, are not added to the TVVOC.

This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

7.6.5 Calculation of R Values with LCI Lists

The concentrations of detected compounds ≥ 5 µg/m³ are divided by their respective LCI/NIK value (if defined in the given publication). The sum of the quotients gives the R value, which can be mathematically expressed:

$$R = \sum_{i}^{n} \left({}^{c_i}/_{NIK_i} + \ldots + {}^{c_n}/_{NIK_n} \right)$$

This R value is calculated, depending on the purpose of this test, for the European LCI list, for the German LCI/NIK list (R_D), and/or for the Belgian LCI list (R_B).

All VOCs without published LCI/NIK value and concentration ≥ 5 µg/m³ are summed up as sum of VOCs without LCI/NIK if required by the standard or protocol.

7.6.6 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6.7 Testing of Phthalates

The presence of phthalates is tested by drawing air samples from the test chamber outlet through tube with Florisil adsorbent after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by GC/MS. Analysis of phthalates is not currently covered by the accreditation (Internal methods no.: 71M549812 / 71M546060).

7.7 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.8 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3. 47

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.9 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.10 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.11 Version History

Report date	Report number	Modification
05/05/2025	392-2025-00100902_A_EN	Current version

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

VOC EMISSION TEST REPORT
Indoor Air Comfort GOLD

22 April 2025

1 Sample Information

Sample name	Clayworks Tadelakt Finish
Batch no.	-
Stated production date	02/12/2024
Product type	Mineral- and dispersion-based finishing and top plaster
Sample reception	25/02/2025

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
French VOC Regulation		Decree of March 2011 (DEVL1101903D) and Arrêté of April 2011 (DEVL1104875A) modified in February 2012 (DEVL1133129A)
French CMR components	Pass	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)
Italian CAM Edilizia	Pass	DM 23 giugno 2022 n. 256, GURI n. 183 del 6 agosto 2022
ABG/AgBB	Pass	Ausschuss zur gesundheitlichen Bewertung von Bauprodukten (September 2024)
Belgian Regulation	Pass	Royal decree of May 2014 (C-2014/24239)
EMICODE	EC 1 PLUS	February 2025
Indoor Air Comfort	Pass	Indoor Air Comfort 9.0 of June 2023
Indoor Air Comfort GOLD	Pass	Indoor Air Comfort GOLD 9.0 of June 2023
Blue Angel (DE-UZ 198)	Pass	DE-UZ 198 for “Low-Emission Internal Plasters”, January 2019
BREEAM International	Exemplary Level	BREEAM International New Construction v6.0 (2021)
BREEAM NOR	Exemplary Level	BREEAM NOR v6.1.1 New Construction (2024)
EU Taxonomy	Pass	Regulation (EU) 2020/852 of the European Parliament and of the Council

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

50

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty¤ [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
Specifications Indoor Air Comfort Gold	9.0 of June 2023	5	Toluene equivalents	22%
French VOC Classes	Decree of 03/2011 (DEVL1101903D) and arrêté of 02/2012 (DEVL1133129A)	2	Toluene equivalents	22%
French CMR	Regulation of April and May 2009 (DEVP0908633A and DEVP0910046A)	1	Toluene equivalents	22%
Italian CAM Edilizia	Regulation 23 June 2022 and decree 6 August 2022	2	Toluene equivalents	22%
AgBB (MVV TB/ABG)	September 2024 (2024/2022)	5	Compound Specific	22%
Belgian VOC	Royal decree of May 2014 (C - 2014 / 24239)	5	Toluene equivalents	22%
EMICODE	February 2025	5	Toluene equivalents	22%
BREEAM NOR	BREEAM NOR v6.1.1 New Construction (2024)	5	Toluene equivalents	22%
BREEAM International	BREEAM International New Construction v6.0 (2021)	5	Toluene equivalents	22%
LEED v4.1 BETA (outside U.S.)	February 2024	5	Compound Specific	22%
EU Taxonomy	Regulation (EU) 2020/852; Annex 1/2 section 7.1 and 7.2	-	-	22%
Blue Angel (DE-UZ 198)	January 2019	5	Compound Specific	22%

51

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty¤ [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, AgBB:2024, EMICODE:2022	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
Sampling of phthalates*	ISO 16000-33:2017, MEL-09:2003	71M549812	60 L	Florisil	-
Analysis of phthalates*	ISO 16000-33:2017	71M546060	0.6 µg/m³	GC/MS	10%

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	10/03/2025 - 12:30
Air change rate, n[h^{-1}]	0.5	Preconditioning period	10/03/2025 - 13/03/2025
Air Velocity [m/s]	0.1	Chamber test period	13/03/2025 - 10/04/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	10/03/2025 - 22/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

52

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for three days before it was transferred into the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A: Water	Drying time, h
1	2500	500 : 130	-

4.3 Picture of Sample

4.4 Deviations from Referenced Protocols and Regulations

No deviations from the referenced test methods were observed.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
3 Day, DNPH silicagel	2025-03-16	11:35 - 13:25	36
3 Day-Res, DNPH silicagel	2025-03-16	11:35 - 13:25	36
3 Day, Tenax TA	2025-03-16	11:36 - 12:36	5.2
3 Day-Res, Tenax TA	2025-03-16	12:36 - 13:26	2.2
28 Day, Florisil	2025-04-10	07:04 - 09:34	60
28 Day-Res, Florisil	2025-04-10	07:04 - 09:35	60
28 Day, DNPH silicagel	2025-04-10	09:52 - 11:43	37
28 Day-Res, DNPH silicagel	2025-04-10	09:52 - 11:43	36
28 Day, Tenax TA	2025-04-10	09:53 - 10:52	5.2
28 Day-Res, Tenax TA	2025-04-10	10:52 - 11:44	2.3

53

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 3 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

54

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5.2 VOC Emission Test Results after 28 Days

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
VOC with NIK/LCI								
None determined								
VOC without NIK/LCI								
None determined								
Sum of VOC without NIK/LCI				< 5	< 5	< 3		
VVOC compounds								
None determined								
TVVOC				< 5	< 5	< 3		
SVOC compounds								
None determined								
TSVOC				< 5	< 5	< 3		
Carcinogens								
Total carcinogens				< 1	< 1	< 1		
CMR (French reg.)								
Benzene	71-43-2		1	< 1		< 1		
Trichloroethylene	79-01-6		1	< 1		< 1		
Dibutylphthalate (DBP)*	84-74-2		1	< 1		< 1		
Diethylhexylphthalate (DEHP)*	117-81-7		1	< 1		< 1		
Aldehydes								
Formaldehyde	50-00-0		1	< 3		< 2		
Acetaldehyde	75-07-0		1	< 3		< 2		
Propionaldehyde	123-38-6		1	< 3		< 2		
Butyraldehyde	123-72-8		1	< 3		< 2		
Acrolein *	107-02-8		1	< 5		< 3		
2-Butenal *	123-73-9		1	< 5		< 3		
Glutaraldehyde *	111-30-8		1	< 3		< 2		
R-values							0	0
TVOC				< 5	< 5	< 3		

55

	CAS No.	Retention time [min]	ID-Cat	Specific Conc. [µg/m³]	Toluene eq. [µg/m³]	Specific SER [µg/(m²·h)]	R_D	R_B
TVOC (French label)					< 2			
Toluene	108-88-3			< 2	< 2	< 1		
Tetrachloroethylene *	127-18-4			< 2	< 2	< 1		
Ethylbenzene	100-41-4			< 2	< 2	< 1		
Xylene *	1330-20-7			< 2	< 2	< 1		
Styrene	100-42-5			< 2	< 2	< 1		
2-Butoxyethanol	111-76-2			< 2	< 2	< 1		
1,2,4-Trimethylbenzene	95-63-6			< 2	< 2	< 1		
1,4-Dichlorobenzene	106-46-7			< 2	< 2	< 1		

56

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of the French VOC Regulation

	CAS No.	Conc. 28 days µg/m³	C µg/m³	B µg/m³	A µg/m³	A+ µg/m³
TVOC	-	< 2	> 2000	< 2000	< 1500	< 1000
Formaldehyde	50-00-0	< 3	> 120	< 120	< 60	< 10
Acetaldehyde	75-07-0	< 3	> 400	< 400	< 300	< 200
Toluene	108-88-3	< 2	> 600	< 600	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	> 500	< 500	< 350	< 250
Ethylbenzene	100-41-4	< 2	> 1500	< 1500	< 1000	< 750
Xylene *	1330-20-7	< 2	> 400	< 400	< 300	< 200
Styrene	100-42-5	< 2	> 500	< 500	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	> 2000	< 2000	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	> 2000	< 2000	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	> 120	< 120	< 90	< 60

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.

57

6.2 Comparison with Limit Values of the CMR Components

CMR (French reg.)	CAS No.	Conc. 28 days µg/m³	Max. allowed air concentration µg/m³
Benzene	71-43-2	< 1	< 1
Trichloroethylene	79-01-6	< 1	< 1
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.3 Comparison with Limit Values of the Italian CAM Regulation

	CAS No.	Conc. 28 days µg/m³	Limit value 28 days µg/m³	Limit value Rewarding score 28 day µg/m³
TVOC	-	< 2	< 1500	< 1000
Formaldehyde	50-00-0	< 3	< 60	< 10
Acetaldehyde	75-07-0	< 3	< 300	< 200
Toluene	108-88-3	< 2	< 450	< 300
Tetrachloroethylene *	127-18-4	< 2	< 350	< 250
Ethylbenzene	100-41-4	< 2	< 1000	< 750
Xylene *	1330-20-7	< 2	< 300	< 200
Styrene	100-42-5	< 2	< 350	< 250
2-Butoxyethanol	111-76-2	< 2	< 1500	< 1000
1,2,4-Trimethylbenzene	95-63-6	< 2	< 1500	< 1000
1,4-Dichlorobenzene	106-46-7	< 2	< 90	< 60
Benzene	71-43-2	< 1	< 1	
Trichloroethylene	79-01-6	< 1	< 1	
Dibutylphthalate (DBP)*	84-74-2	< 1	< 1	
Diethylhexylphthalate (DEHP)*	117-81-7	< 1	< 1	

The product was assigned a VOC emission class without taking into account the measurement uncertainty associated with the result.

58

6.4 Comparison with Limit Values of AgBB/ABG

Parameters	Test after 3 days		Test after 28 days	
	Concentration mg/m³	Limit Value mg/m³	Concentration mg/m³	Limit Value mg/m³
TVOC	< 0.005	≤ 10	< 0.005	≤ 1.0
TSVOC	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Formaldehyde	-	-	< 0.003	≤ 0.1
Any individual carcinogens	< 0.001	≤ 0.01	< 0.001	≤ 0.001

Compliance with the limits alone does not replace an approval or voluntary documentation by a Technical Assessment Body according to the Construction Product Regulation. This requires an application and approval.

6.5 Comparison with Limit Values of the Belgian Regulation

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC (EN 16516)	< 5	≤ 1000
TSVOC	< 5	≤ 100
R-value (dimensionless)	0	≤ 1
Total carcinogens	< 1	≤ 1
Toluene	< 5	≤ 300
Formaldehyde	< 3	≤ 100
Acetaldehyde	< 3	≤ 200

59

6.6 Comparison with Limit Values of LEED v4.1 BETA

Parameters	Test after 28 days	
	Concentration µg/m³	Limit Value µg/m³
TVOC	< 5	≤ 1000
Sum of VOC without NIK/LCI	< 5	< 100
Formaldehyde	< 3	≤ 10
R-value (dimensionless)	0	≤ 1

This evaluation only concerns the emission requirements of LEED v4.1 BETA. In order to satisfy the credit on “Low-Emitting Material” according to the requirements of LEED v4.1 BETA (February 2024), the product must also show compliance with the VOC content requirements.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.7 Comparison with Limit Values of BREEAM NOR

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 0.3	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

6.8 Comparison with Limit Values of BREEAM International

Parameters	Concentration mg/m³	Basic Level mg/m³	Exemplary Level mg/m³
Formaldehyde 28 days	< 0.003	≤ 0.06	≤ 0.01
TVOC (EN 16516) 28 days	< 0.005	≤ 1.0	≤ 0.3
TSVOC 28 days	< 0.005	-	≤ 0.1
total carcinogens 28 days	< 0.001	≤ 0.001	≤ 0.001

60

6.9 Comparison with Limit Values of EU Taxonomy

Parameters	Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³
Formaldehyde	< 0.002	≤ 0.06
Any individual carcinogens	< 0.001	< 0.001

The formaldehyde emission is tested according to EN 16516 with air change rate 0.5 /h and relative humidity of 50 ± 5 %. Results have been recalculated to a loading of 1 m²/m³ and air change rate of 1 /h.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.10 Comparison with Limit Values of Indoor Air Comfort

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	**Limit Value** µg/m³	**Concentration** µg/m³	**Limit Value** µg/m³
TVOC (EN 16516)	< 5	≤ 10000	< 5	≤ 1000
TSVOC	< 5	-	< 5	≤ 100
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 100
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	≤ 1
Formaldehyde	< 3	-	< 3	≤ 60
Acetaldehyde	< 3	-	< 3	≤ 200
French A+/A	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

61

6.11 Comparison with Limit Values of Indoor Air Comfort Gold

	Test after 3 days		Test after 28 days	
	Concentration µg/m³	**Limit Value** µg/m³	**Concentration** µg/m³	**Limit Value** µg/m³
TVOC (EN 16516)	< 5	≤ 750	< 5	≤ 60
TSVOC	< 5	-	< 5	≤ 30
R_D-value (NIK) (dimensionless)	0	-	0	≤ 1
R_B-value (LCI) (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 5	-	< 5	≤ 40
Total carcinogens	< 1	≤ 10	-	-
Any individual carcinogens	-	-	< 1	≤ 1
CMR (French reg.)	-	-	< 1	< 1
Formaldehyde	< 3	≤ 50	< 3	< 10
Acetaldehyde	< 3	≤ 50	< 3	≤ 50
Sum Formaldehyde + Acetaldehyde [ppb]	< 5	≤ 50	-	-
Propionaldehyde	-	-	< 3	≤ 60
Butyraldehyde	-	-	< 3	≤ 60
French A+	-	-	Complies	

Compliance with the limits alone does not entitle to use the Indoor Air Comfort GOLD label. This requires an application, site inspection, and approval. See www.eurofins.com/iac-procedures.

62

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6.12 Comparison with Limit Values of EMICODE

Parameters	Concentration µg/m³	EC 2 µg/m³	EC 1 µg/m³	EC 1 PLUS µg/m³
TVOC 3 days (EN 16516)	< 5	≤ 3000	≤ 1000	≤ 750
TVOC 28 days (EN 16516)	< 5	≤ 300	≤ 100	≤ 60
TSVOC 28 days (EN 16516)	< 5	≤ 100	≤ 50	≤ 40
Sum without NIK/LCI 28 days	< 5	> 40		≤ 40
R-value 28 days (dimensionless)	0	> 1	≤ 1	
Formaldehyde 3 days	< 3	≤ 50		
Acetaldehyde 3 days	< 3	≤ 50		
Sum Formaldehyde + Acetaldehyde [ppm] 3 days	< 0.005	≤ 0.05		
Formaldehyde 28 days	< 3	≤ 10		
Sum carcinogens 3 days	< 1	≤ 10		
Sum carcinogens 28 days	< 1	≤ 1		

This test report does not alone entitle to use the protected trademark label EMICODE. For the use of an EMICODE label a license has to be applied for at the GEV, Düsseldorf, Germany. A license can only be granted for ready-to use products, if some additional requirements on contents of certain chemicals (e.g. solvent-free) are fulfilled.

63

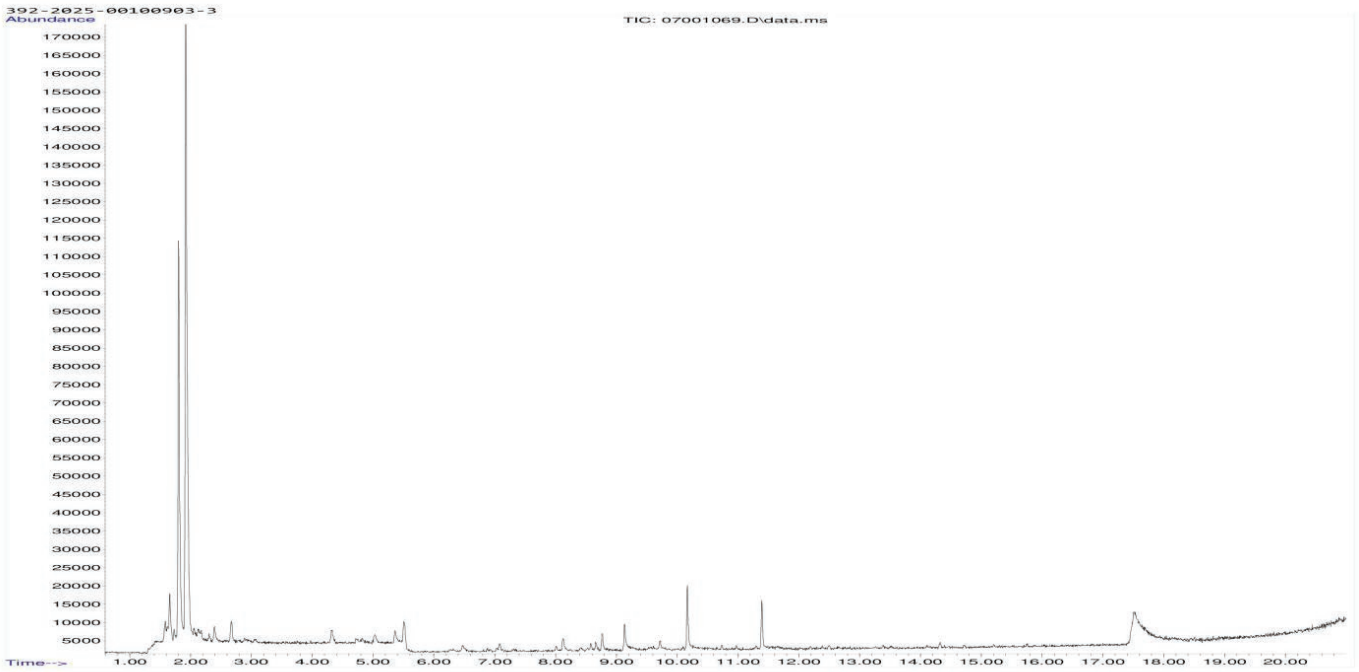
6.13 Comparison with Limit Values of Blue Angel (DE-UZ 198)

	Test after 3 days		Test after 28 days	
	Concentration mg/m³	**Limit Value** mg/m³	**Concentration** mg/m³	**Limit Value** mg/m³
TVOC with SVOC with NIK	< 0.005	≤ 3.0	< 0.005	≤ 0.3
TSVOC w/o SVOCs with NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
R-value (dimensionless)	0	-	0	≤ 1
Sum of VOC without NIK/LCI	< 0.005	-	< 0.005	≤ 0.1
Total carcinogens	< 0.001	≤ 0.01	-	-
Any individual carcinogens	-	-	< 0.001	≤ 0.001
Formaldehyde [µg/m³]	-	-	< 3	≤ 60
Acetaldehyde [µg/m³]	-	-	< 3	≤ 120

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

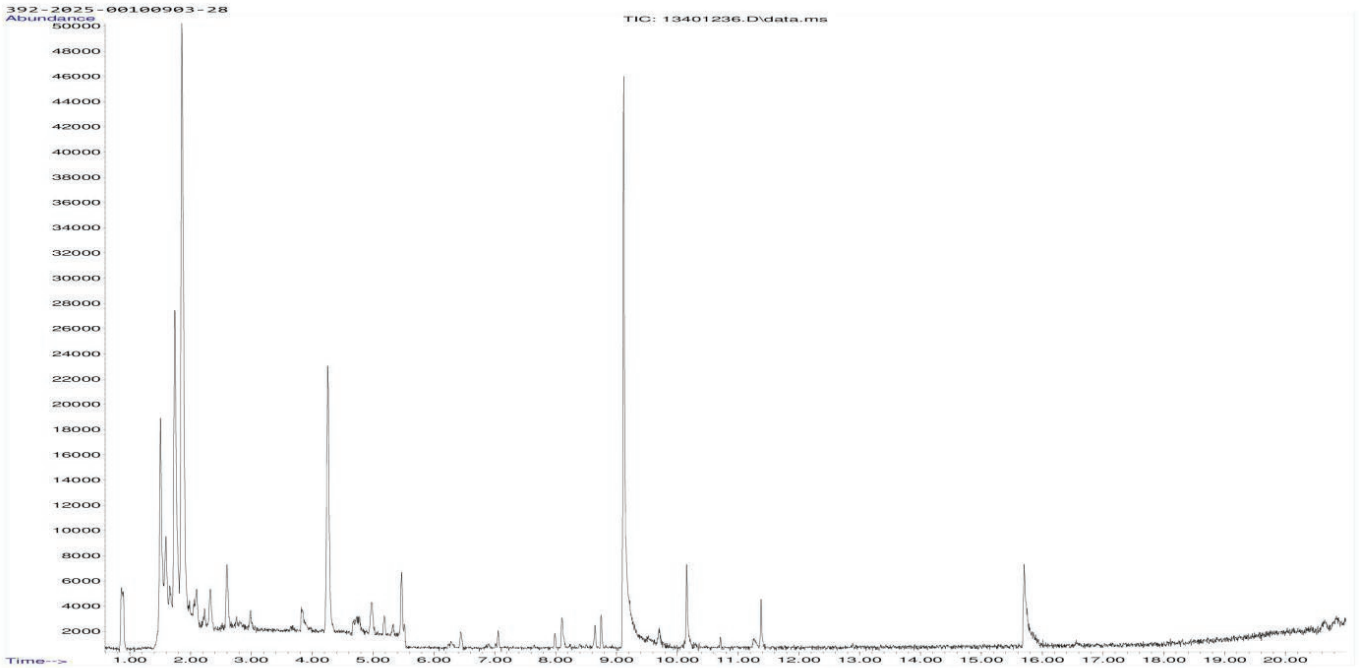
7 Appendices

7.1 Chromatogram of VOC Emissions after 3 Days



64

7.2 Chromatogram of VOC Emissions after 28 Days



Please consider the different scales.

7.3 Sampling Report

Combined Sampling Report and Chain of Custody			
Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326 341 339		
Product information			
Name of the product:	Clayworks Tadelakt Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom
Production & Sampling information			
Production Date: **Time:**	02/12/2024	**Sampling Date:** **Time:**	20/02/25
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	
Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).			
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):			
Confirmation from the applicant			
Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.			
Date:	**Signature:**		

65

	(Stamp) [illegible] Rural [illegible] Lanes, [illegible] UK T012 7AZ VAT no. GB 986755351 EORI. GB986755351000 Ltd Company Reg No: 4552149

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	24/02/25	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.): 25/2-25, OK, 392-00100903

Receptionist, Eurofins Product Testing A/S:	Signature of receptionist:
[illegible]	

66

7.4 How to Understand the Results

7.4.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.4.2 Explanation of ID Category

67

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.5 Applied LCI and NIK Values

7.5.1 LCI/NIK Values for Compounds found after 3 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

7.5.2 LCI/NIK Values for Compounds found after 28 Day Measurements

Compound	CAS No.	AgBB 2024 NIK [µg/m³]	Belgian NIK [µg/m³]
None determined	-	-	-

68

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6 Description of VOC Emission Test

7.6.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.6.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.6.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

69

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.6.4 Testing of VOC, SVOC and VVOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

All single substances that are listed with a LCI/NIK value in the latest publications (hereafter referred to as target compounds) are identified if present. All other appearing VOCs are identified as far as possible. Quantification of target compounds is done using the TIC signal and authentic response factors, or the relative response factors relative to toluene. For certain compound groups, which differ significantly in chemistry from toluene, quantification is performed relative to a representative member of the group for more accurate and precise results. This can include quantification of for example glycols and acids. In addition to that, all results are also expressed in toluene equivalents. All non-target compounds, as well as all non-identified substances, are quantified in toluene equivalents.

The results of the individual substances are calculated in three groups depending on their retention time when analyzing using a non-polar column (HP-1):

- Volatile Organic Compounds (VOC) are defined as: All substances eluting between and including n-hexane (n-C6) and n-hexadecane (n-C16)

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

- Semi-Volatile Organic Compounds (SVOC) are defined as: All substances eluting after n-hexadecane (n-C16) and before and including n-docosane (n-C22)
- Very Volatile Organic Compounds (VVOC) are defined as: All substances eluting before n-hexane (n-C6).

Total Volatile Organic Compounds (TVOC) is calculated by summation of all individual VOCs with a concentration ≥ 5 µg/m³. The TVOC can be expressed either in toluene equivalents as defined in EN 16516 and similar to ISO 16000-6, or as the sum of concentrations using specific or relative response factors. In the case of summation of concentrations using authentic or relative response factors, the toluene equivalent is applied to all non-target and non-identified VOCs before summing up. Compounds regarded as VOC in line with the above definition but elute before n-C6 or after n-C16 on the HP-5 column are treated as VOC, and are thus added to the TVOC.

Total Semi-Volatile Organic Compounds (TSVOC) is calculated by the summation of all individual SVOCs expressed in toluene equivalents with a concentration ≥ 5 µg/m³, as defined in EN 16516. VOCs that are regarded as VOC in line with the above definition, but elute after n-C16 in this test, are not added to the TSVOC.

Total Very Volatile Organic Compounds (TVVOC) is calculated by the summation of all individual VVOCs with a concentration ≥ 5 µg/m³ and expressed in toluene equivalents. VOCs that are regarded as VOC in line with the above definition, but elute before n-C6 in this test, are not added to the TVVOC.

This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

70

7.6.5 Calculation of R Values with LCI Lists

The concentrations of detected compounds ≥ 5 µg/m³ are divided by their respective LCI/NIK value (if defined in the given publication). The sum of the quotients gives the R value, which can be mathematically expressed:

$$R = \sum_{i}^{n} \left({}^{c_i}/_{NIK_i} + \ldots + {}^{c_n}/_{NIK_n} \right)$$

This R value is calculated, depending on the purpose of this test, for the European LCI list, for the German LCI/NIK list (R_D), and/or for the Belgian LCI list (R_B).

All VOCs without published LCI/NIK value and concentration ≥ 5 µg/m³ are summed up as sum of VOCs without LCI/NIK if required by the standard or protocol.

7.6.6 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.6.7 Testing of Phthalates

The presence of phthalates is tested by drawing air samples from the test chamber outlet through tube with Florisil adsorbent after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by GC/MS. Analysis of phthalates is not currently covered by the accreditation (Internal methods no.: 71M549812 / 71M546060).

7.7 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.8 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3.

71

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.9 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.10 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.11 Version History

Report date	Report number	Modification
22/04/2025	392-2025-00100903_A_EN	Current version

72

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

VOC EMISSION TEST REPORT
CDPH

2 May 2025

1 Sample Information

Sample name	Clayworks Smooth Finish
Batch no.	-
Stated production date	03/01/2025
Product type	Mineral- and dispersion-based finishing and top plaster (GEV 8.2)
Sample reception	18/03/2025

73

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
CDPH §	Pass	CDPH/EHLB/Standard Method V1.2. (January 2017)

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix
§ See section 4.4 on deviations.

Isabella B. Larsen
Analytical Service Manager

Janne Rothmann Norup
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

74

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty[a] [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
CDPH	CDPH/EHLB/Standard Method V1.2. (January 2017)	2	Toluene equivalents	22%

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty[a] [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, CDPH:2017	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
sampling on carboxen	ISO 16000-6:2021	71M542809	15 L	Carboxen	-
analysis of carboxen	ISO 16000-6:2021, CDPH	71M542809	2 µg/m³	ATD-GC/MS using a HP5-MS column	10%-33%

75

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	25/03/2025 - 11:02
Air change rate, n[h^{-1}]	0.5	Preconditioning period	25/03/2025 - 28/03/2025
Air Velocity [m/s]	0.1	Chamber test period	28/03/2025 - 11/04/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	25/03/2025 - 30/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

76

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for 72 hours before it was transferred to the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A:Water	Drying time, h
1	2500	300 : 60	-

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4.3 Picture of Sample

77

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4.4 Deviations from Referenced Protocols and Regulations

The air change rate was 0.5/h (not 1.0/h) during testing; the results were calculated back to normative air exchange rates for classroom and small office.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
11 Day, DNPH silicagel	2025-04-08	10:33 - 12:20	35
11 Day-Res, DNPH silicagel	2025-04-08	10:33 - 12:21	36
11 Day, Tenax TA	2025-04-08	10:34 - 11:33	5.0
11 Day-Res, Tenax TA	2025-04-08	11:34 - 12:21	2.2
12 Day, Tenax TA	2025-04-09	10:10 - 11:10	5.3
12 Day-Res, Tenax TA	2025-04-09	11:11 - 11:59	2.2
12 Day, DNPH silicagel	2025-04-09	10:09 - 11:59	36
12 Day-Res, DNPH silicagel	2025-04-09	10:09 - 11:59	36
14 Day, Tenax TA	2025-04-11	10:43 - 11:43	5.2
14 Day-Res, Tenax TA	2025-04-11	11:44 - 12:32	2.4
14 Day, DNPH silicagel	2025-04-11	10:42 - 12:32	36
14 Day-Res, DNPH silicagel	2025-04-11	10:42 - 12:32	36
14 Day, Carboxen 1000	2025-04-11	07:20 - 09:50	16
14 Day-Res, Carboxen 1000	2025-04-11	07:20 - 09:51	15

78

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 11 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

5.2 VOC Emission Test Results after 12 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

79

5.3 VOC Emission Test Results after 14 Days

	CAS No.	Retention time [min]	ID-Cat	SER [µg/(m²·h)]	Classroom Conc. [µg/m³]	Office Conc. [µg/m³]	½ CREL [µg/m³]
VOC (C5-C17)							
None determined					< 2	< 2	
TVOC (C5-C17)tol. eq.				< 1	< 2	< 2	
Aldehydes							
Formaldehyde	50-00-0		1	< 2	< 2	< 4	9
Acetaldehyde	75-07-0		1	< 2	< 2	< 4	70

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of CDPH

Parameters	Test after 14 days			
	CAS No. Single compounds	Concentration in Classroom [µg/m³]	Concentration in Office Room [µg/m³]	½ CREL [µg/m³]
TVOC (C5-C17)tol. eq.	-	< 2	< 2	-
Single compounds (with defined CREL values) None determined	-	-	-	-
Formaldehyde	50-00-0	< 2	< 4	≤ 9
Acetaldehyde	75-07-0	< 2	< 4	≤ 70

6.1.1 Conversion of Emission Rates to CDPH Reference Room Concentrations

The CDPH method requires calculation of the measured emission rates into concentrations in given reference rooms. The equation and parameters figured below have been applied to calculate the concentrations in an office room or a classroom as required in the CDPH. The area used in the calculation varies depending on the expected usage of the product and therefore several entries can be found. Small and Very Small areas are not provided within the CDPH but are adapted from definitions given in EN 16516 and ISO 16000-9.

80

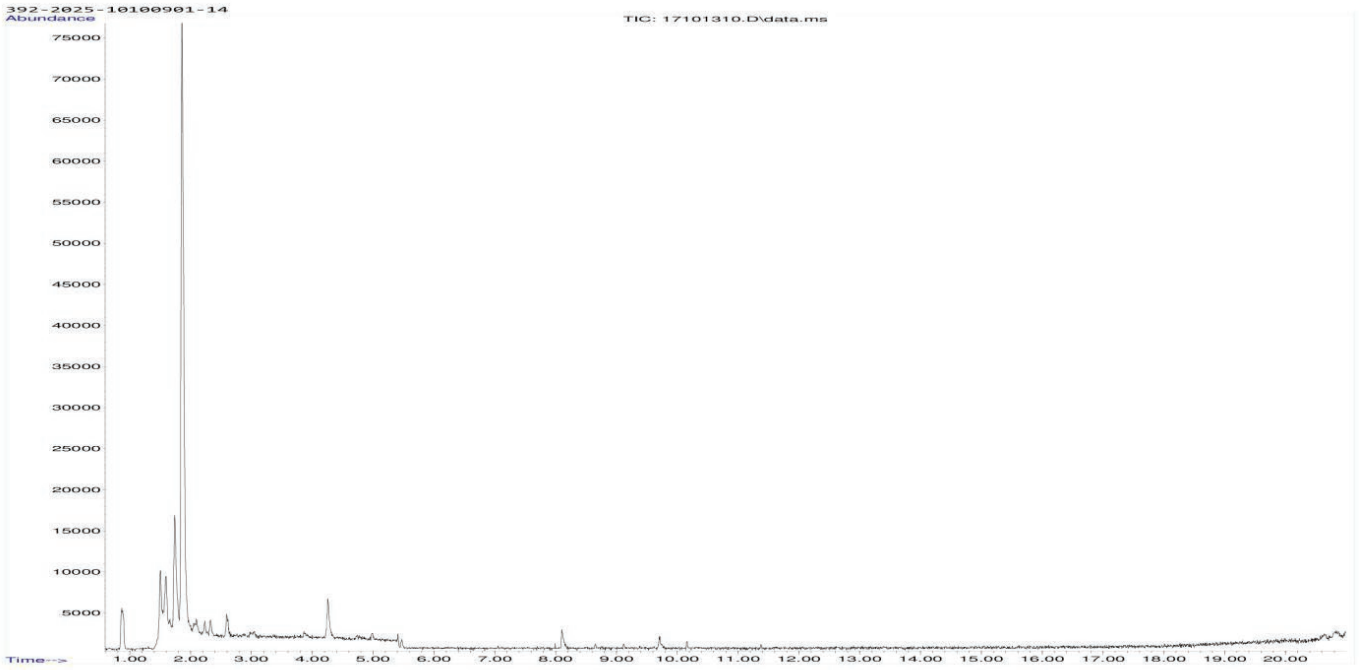
$$C_{Calculated} = \frac{SER_A \cdot A}{n \cdot V}$$

		Classroom parameters	Office Room parameters
SER	Area specific emission rate, µg/(m²h)	As tested	As tested
n	Air change, h^{-1}	0.82	0.68
V	Volume of reference room, m³	231	30.6
A	Floor area, m²	89.2	11.1
	Walls area, m²	94.6	33.4
	Ceiling and Wall, m²	183.8	N/A
	Door and Millwork, m²	1.89	1.89
	Desk or Chair, units	27	1
	Very Small areas, m²	1.62	0.021
	Small areas, m²	11.55	1.53

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7 Appendices

7.1 Chromatogram of VOC Emissions after 14 Days



81

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.2 Chain of Custody

Combined Sampling Report and Chain of Custody			
Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326 341 339		
Product information			
Name of the product:	Clayworks Smooth Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom
Production & Sampling information			
Production Date: Time:	03/01/2025	**Sampling Date: Time:**	20/02/2025
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	
Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).			
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):			
Confirmation from the applicant			
Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.			
Date:	**Signature:**		

82

(Stamp) Clayworks
info@clay-works.com
+44 (0)1326 341339
clay-works.com
[illegible] Bochym Rural
[illegible], Cury Cross Lanes,
[illegible], Cornwall, UK TR12 7AZ
VAT no. GB 988755351
EORI. GB988755351000
Ltd Company Reg No: [illegible]

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	24/02/25	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.): 25h-25 - ok, 392-2025-00100901

Receptionist, Eurofins Product Testing A/S:	Signature of receptionist:
kgr3	

83

7.3 How to Understand the Results

7.3.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.3.2 Explanation of ID Category

84

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4 Description of VOC Emission Test

7.4.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.4.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.4.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

85

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.4.4 Testing of VOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film).
This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

7.4.5 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4.6 Testing of Carboxen Tubes

The presence of low boiling VOC is tested by drawing air samples from the test chamber outlet through carboxen tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using a HP5-MS column. This test only covers substances which has a CREL value and are not possible to sample on Tenax tubes

7.5 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.6 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3. 86

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.7 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.8 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.9 Version History

Report date	Report number	Modification
02/05/2025	392-2025-10100901_H_EN	Current version

87

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

VOC EMISSION TEST REPORT
CDPH

5 May 2025

1 Sample Information

Sample name	Clayworks Rustic Finish
Batch no.	-
Stated production date	03/01/2025
Product type	Mineral- and dispersion-based finishing and top plaster
Sample reception	18/03/2025

88

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
CDPH §	Pass	CDPH/EHLB/Standard Method V1.2. (January 2017)

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix
§ See section 4.4 on deviations.

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

89

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty¤ [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
CDPH	CDPH/EHLB/Standard Method V1.2. (January 2017)	2	Toluene equivalents	22%

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty¤ [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, CDPH:2017	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
sampling on carboxen	ISO 16000-6:2021	71M542809	15 L	Carboxen	-
analysis of carboxen	ISO 16000-6:2021, CDPH	71M542809	2 µg/m³	ATD-GC/MS using a HP5-MS column	10%-33%

90

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	25/03/2025 - 09:33
Air change rate, n[h^{-1}]	0.5	Preconditioning period	25/03/2025 - 28/03/2025
Air Velocity [m/s]	0.1	Chamber test period	28/03/2025 - 11/04/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	25/03/2025 - 30/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

91

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for three days before it was transferred into the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A: Water	Drying time, h
1	2500	1000 : 200	-

4.3 Picture of Sample

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4.4 Deviations from Referenced Protocols and Regulations

The air change rate was 0.5/h (not 1.0/h) during testing; the results were calculated back to normative air exchange rates for classroom and small office.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
11 Day, DNPH silicagel	2025-04-08	10:31 - 12:19	35
11 Day-Res, DNPH silicagel	2025-04-08	10:31 - 12:19	35
11 Day, Tenax TA	2025-04-08	10:32 - 11:30	5.0
11 Day-Res, Tenax TA	2025-04-08	11:31 - 12:20	2.2
12 Day, Tenax TA	2025-04-09	10:07 - 11:07	5.2
12 Day-Res, Tenax TA	2025-04-09	11:08 - 11:57	2.2
12 Day, DNPH silicagel	2025-04-09	10:06 - 11:56	36
12 Day-Res, DNPH silicagel	2025-04-09	10:06 - 11:56	36
14 Day, Tenax TA	2025-04-11	10:46 - 11:46	5.2
14 Day-Res, Tenax TA	2025-04-11	11:46 - 12:35	2.3
14 Day, DNPH silicagel	2025-04-11	10:46 - 12:35	37
14 Day-Res, DNPH silicagel	2025-04-11	10:46 - 12:35	36
14 Day, Carboxen 1000	2025-04-11	07:24 - 09:54	15
14 Day-Res, Carboxen 1000	2025-04-11	07:24 - 09:54	15

92

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 11 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

5.2 VOC Emission Test Results after 12 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

93

5.3 VOC Emission Test Results after 14 Days

	CAS No.	Retention time [min]	ID-Cat	SER [µg/(m²·h)]	Classroom Conc. [µg/m³]	Office Conc. [µg/m³]	½ CREL [µg/m³]
VOC (C5-C17)							
None determined					< 2	< 2	
TVOC (C5-C17)tol. eq.				< 1	< 2	< 2	
Aldehydes							
Formaldehyde	50-00-0		1	< 2	< 2	< 4	9
Acetaldehyde	75-07-0		1	< 2	< 2	< 4	70

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of CDPH

Parameters	Test after 14 days			
	CAS No. Single compounds	Concentration in Classroom [µg/m³]	Concentration in Office Room [µg/m³]	½ CREL [µg/m³]
TVOC (C5-C17)tol. eq.	-	< 2	< 2	-
Single compounds (with defined CREL values) None determined	-	-	-	-
Formaldehyde	50-00-0	< 2	< 4	≤ 9
Acetaldehyde	75-07-0	< 2	< 4	≤ 70

6.1.1 Conversion of Emission Rates to CDPH Reference Room Concentrations

The CDPH method requires calculation of the measured emission rates into concentrations in given reference rooms. The equation and parameters figured below have been applied to calculate the concentrations in an office room or a classroom as required in the CDPH. The area used in the calculation varies depending on the expected usage of the product and therefore several entries can be found. Small and Very Small areas are not provided within the CDPH but are adapted from definitions given in EN 16516 and ISO 16000-9.

94

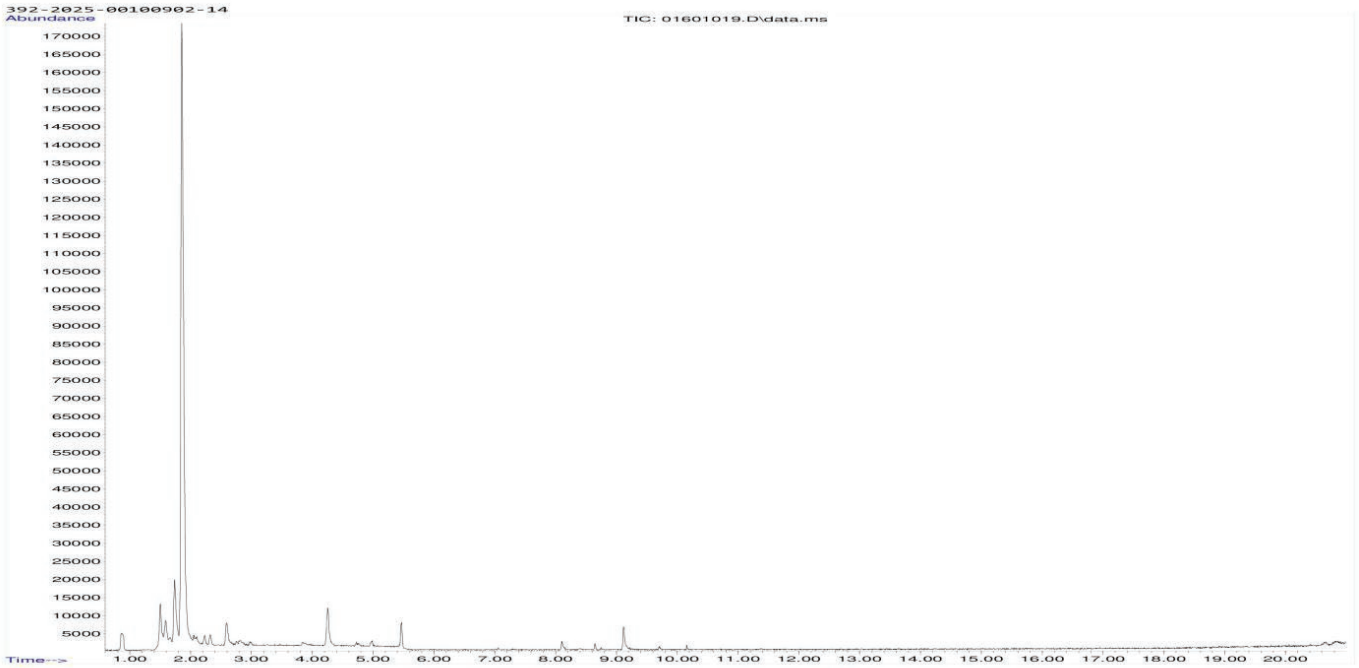
$$C_{Calculated} = \frac{SER_A \cdot A}{n \cdot V}$$

		Classroom parameters	Office Room parameters
SER	Area specific emission rate, µg/(m²h)	As tested	As tested
n	Air change, h^{-1}	0.82	0.68
V	Volume of reference room, m³	231	30.6
A	Floor area, m²	89.2	11.1
	Walls area, m²	94.6	33.4
	Ceiling and Wall, m²	183.8	N/A
	Door and Millwork, m²	1.89	1.89
	Desk or Chair, units	27	1
	Very Small areas, m²	1.62	0.021
	Small areas, m²	11.55	1.53

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7 Appendices

7.1 Chromatogram of VOC Emissions after 14 Days



95

7.2 Chain of Custody

Combined Sampling Report and Chain of Custody

Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326341339

Product information

Name of the product:	Clayworks Rustic Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom

Production & Sampling information

Production Date: **Time:**	10/03/25	**Sampling Date:** **Time:**	14/03/25
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	

Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):

Confirmation from the applicant

Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.

Date:	**Signature:**

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Eurofins Product Testing

Clayworks
info@clay-works.com
+44 (0)1326 341339
clay-works.com
Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, UK TR12 7AZ
VAT no. GB 986755351
EORI. GB986755351000
Ltd Company Reg No: 4552140

Combined Report
Version 1.1

	(Stamp)

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	17/03/2025	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.):	18/3-2025, OK 392-2025-00100902+05
Receptionist, Eurofins Product Testing A/S:	**Signature of receptionist:**

97

7.3 How to Understand the Results

7.3.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.3.2 Explanation of ID Category

98

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4 Description of VOC Emission Test

7.4.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.4.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.4.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

99

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.4.4 Testing of VOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film).
This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

7.4.5 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4.6 Testing of Carboxen Tubes

The presence of low boiling VOC is tested by drawing air samples from the test chamber outlet through carboxen tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using a HP5-MS column. This test only covers substances which has a CREL value and are not possible to sample on Tenax tubes

7.5 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.6 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3. 100

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.7 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.8 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.9 Version History

Report date	Report number	Modification
05/05/2025	392-2025-00100902_H_EN	Current version

101

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

VOC EMISSION TEST REPORT
CDPH

22 April 2025

1 Sample Information

Sample name	Clayworks Tadelakt Finish
Batch no.	-
Stated production date	02/12/2024
Product type	Mineral- and dispersion-based finishing and top plaster
Sample reception	25/02/2025

102

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
CDPH §	Pass	CDPH/EHLB/Standard Method V1.2. (January 2017)

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix
§ See section 4.4 on deviations.

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Table of contents

103

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Version	Reporting limit VOC [µg/m³]	Calculation of TVOC	Combined uncertainty¤ [RSD(%)]
EN 16516	2017 + A1:2020	5	Toluene equivalents	22%
ISO 16000 -3 -6 -9 -11	2021-2024 depending on part	2	Toluene equivalents	22%
ASTM D5116-17	2017	-	-	-
CDPH	CDPH/EHLB/Standard Method V1.2. (January 2017)	2	Toluene equivalents	22%

3.2 Specific Laboratory Sampling and Analyses

Procedure	External Method	Internal SOP	Quantification limit / sampling volume	Analytical principle	Uncertainty¤ [RSD(%)]
Sample preparation	ISO 16000-11:2024, EN 16516:2017+A1:2020, CDPH:2017	71M549810	-	-	-
Emission chamber testing	ISO 16000-9:2024, EN 16516:2017+A1:2020	71M549811	-	Chamber and air control	-
Sampling of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M549812	5 L	Tenax TA	-
Analysis of VOC	ISO 16000-6:2021, EN 16516:2017+A1:2020	71M542808B	1 µg/m³	ATD-GC/MS	10%
Sampling of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M549812	35 L	DNPH	-
Analysis of aldehydes	ISO 16000-3:2022, EN 16516:2017+A1:2020	71M548400	3-6 µg/m³	HPLC-UV	10%
sampling on carboxen	ISO 16000-6:2021	71M542809	15 L	Carboxen	-
analysis of carboxen	ISO 16000-6:2021, CDPH	71M542809	2 µg/m³	ATD-GC/MS using a HP5-MS column	10%-33%

104

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4 Test Parameters, Sample Preparation and Deviations

4.1 VOC Emission Chamber Test Parameters

Parameters	Value	Sample Conditions	Value
Chamber volume, V[L]	119	Date and time of unpacking and start of sample preparation	10/03/2025 - 12:30
Air change rate, n[h^{-1}]	0.5	Preconditioning period	10/03/2025 - 13/03/2025
Air Velocity [m/s]	0.1	Chamber test period	13/03/2025 - 27/03/2025
Area specific ventilation rate, q [m/h or $m^3/m^2/h$]	0.5	Analytical test period	10/03/2025 - 22/04/2025
Relative humidity of supply air, RH [%]	50 ± 3	Exposed sample area [m^2]	0.120
Temperature of supply air, T [°C]	23 ± 1	Loading factor [m^2/m^3]	1.0
Background concentration of individual VOC's [µg/m^3]	< 2	Test scenario	Wall
Background concentration of TVOC [µg/m^3]	< 20		

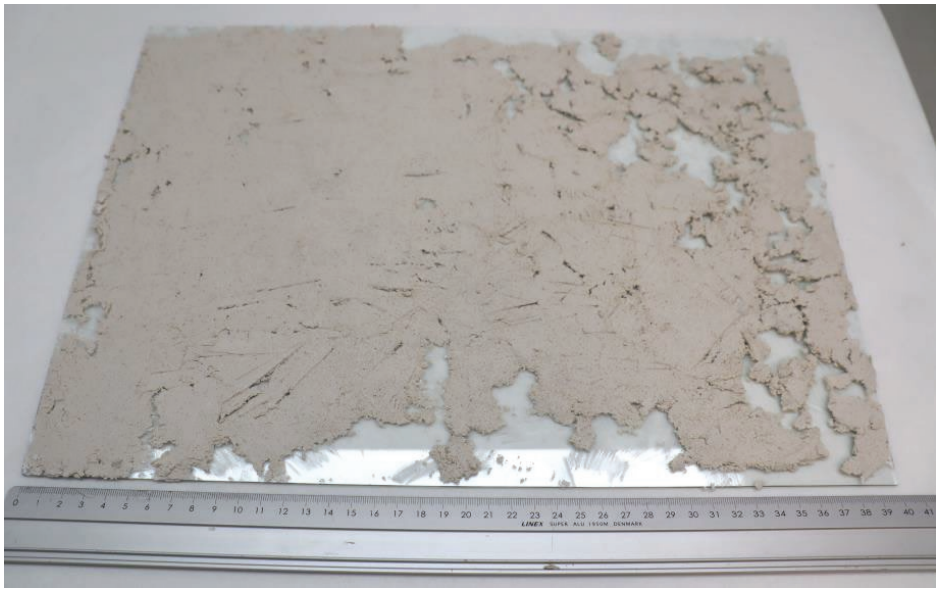
105

4.2 Preparation of the Test Specimen

The sample was mixed in a ratio A:Water according to the client's instructions before it was homogenised and applied onto a glass plate. The sample was preconditioned for three days before it was transferred into the test chamber.

Number of Layers	Application amount per layer, g/m^2	Mixing ratio, A: Water	Drying time, h
1	2500	500 : 130	-

4.3 Picture of Sample



The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

4.4 Deviations from Referenced Protocols and Regulations

The air change rate was 0.5/h (not 1.0/h) during testing; the results were calculated back to normative air exchange rates for classroom and small office.

4.5 Air Samplings from the Test Chamber

Sampling media	Day (yyyy-mm-dd)	Time (hh:mm)	Volume [L]
11 Day, DNPH silicagel	2025-03-24	11:50 - 13:40	37
11 Day-Res, DNPH silicagel	2025-03-24	11:51 - 13:40	36
11 Day, Tenax TA	2025-03-24	11:51 - 12:51	5.3
11 Day-Res, Tenax TA	2025-03-24	12:51 - 13:40	2.2
12 Day, Tenax TA	2025-03-25	11:32 - 12:32	5.0
12 Day-Res, Tenax TA	2025-03-25	12:33 - 13:21	2.3
12 Day, DNPH silicagel	2025-03-25	11:31 - 13:20	36
12 Day-Res, DNPH silicagel	2025-03-25	11:31 - 13:21	36
14 Day, Tenax TA	2025-03-27	11:55 - 12:56	5.3
14 Day-Res, Tenax TA	2025-03-27	12:56 - 13:44	2.2
14 Day, DNPH silicagel	2025-03-27	11:53 - 13:43	37
14 Day-Res, DNPH silicagel	2025-03-27	11:54 - 13:44	36
14 Day, Carboxen 1000	2025-03-27	06:26 - 08:57	15
14 Day-Res, Carboxen 1000	2025-03-27	06:27 - 08:58	15

106

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Results

5.1 VOC Emission Test Results after 11 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

5.2 VOC Emission Test Results after 12 Days

	CAS No.	Specific Conc. [µg/m³]	Specific SER [µg/(m²·h)]	Toluene eq. [µg/m³]	Toluene SER [µg/(m²·h)]
TVOC (C5-C17)tol. eq.				< 2	< 1
Aldehydes					
Formaldehyde	50-00-0	< 3	< 2		
Acetaldehyde	75-07-0	< 3	< 2		

107

5.3 VOC Emission Test Results after 14 Days

	CAS No.	Retention time [min]	ID-Cat	SER [µg/(m²·h)]	Classroom Conc. [µg/m³]	Office Conc. [µg/m³]	½ CREL [µg/m³]
VOC (C5-C17)							
None determined				< 1	< 2	< 2	
TVOC (C5-C17)tol. eq.				< 1	< 2	< 2	
Aldehydes							
Formaldehyde	50-00-0		1	< 2	< 2	< 4	9
Acetaldehyde	75-07-0		1	< 2	< 2	< 4	70

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

6 Summary and Evaluation of the Results

6.1 Comparison with Limit Values of CDPH

Parameters	Test after 14 days			
	CAS No. Single compounds	Concentration in Classroom [µg/m³]	Concentration in Office Room [µg/m³]	½ CREL [µg/m³]
TVOC (C5-C17)tol. eq.	-	< 2	< 2	-
Single compounds (with defined CREL values) None determined	-	-	-	-
Formaldehyde	50-00-0	< 2	< 4	≤ 9
Acetaldehyde	75-07-0	< 2	< 4	≤ 70

6.1.1 Conversion of Emission Rates to CDPH Reference Room Concentrations

The CDPH method requires calculation of the measured emission rates into concentrations in given reference rooms. The equation and parameters figured below have been applied to calculate the concentrations in an office room or a classroom as required in the CDPH. The area used in the calculation varies depending on the expected usage of the product and therefore several entries can be found. Small and Very Small areas are not provided within the CDPH but are adapted from definitions given in EN 16516 and ISO 16000-9. 108

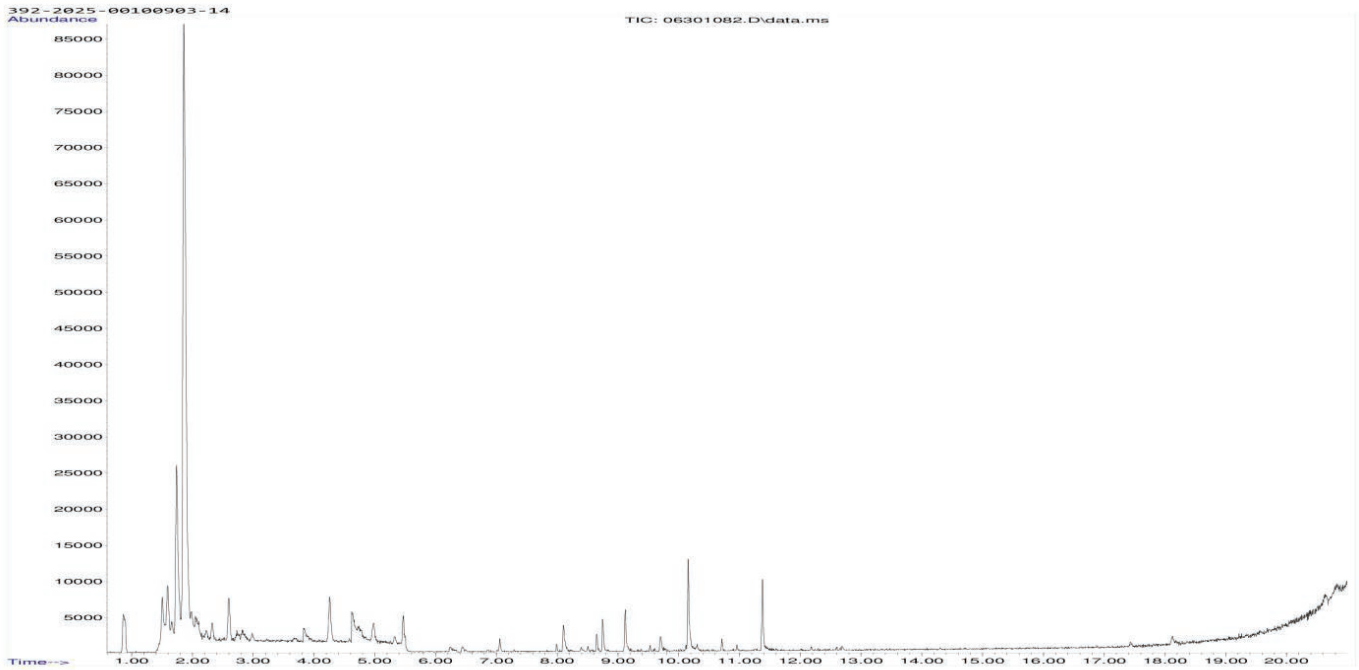
$$C_{Calculated} = \frac{SER_A \cdot A}{n \cdot V}$$

		Classroom parameters	Office Room parameters
SER	Area specific emission rate, µg/(m²h)	As tested	As tested
n	Air change, h^{-1}	0.82	0.68
V	Volume of reference room, m³	231	30.6
A	Floor area, m²	89.2	11.1
	Walls area, m²	94.6	33.4
	Ceiling and Wall, m²	183.8	N/A
	Door and Millwork, m²	1.89	1.89
	Desk or Chair, units	27	1
	Very Small areas, m²	1.62	0.021
	Small areas, m²	11.55	1.53

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7 Appendices

7.1 Chromatogram of VOC Emissions after 14 Days



109

7.2 Chain of Custody

Combined Sampling Report and Chain of Custody			
Name of applicant: (name, company, phone)	Marcie Russell , Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom , 01326 341 339		
Product information			
Name of the product:	Clayworks Tadelakt Finish	**Product type**	Mineral- and dispersion based finishing and top plasters
Batch N°:		**Article N°:**	
Model / Program / Series:		**Manufacture:** (Company, Address, Stamp)	Clayworks , Clayworks Higher Bochym Workshops, Cross Lanes, Helston , TR12 7AZ, United Kingdom
Production & Sampling information			
Production Date: Time:	02/12/2024	**Sampling Date:** Time:	20/02/25
Place of sampling (if deviating from the manufature)		**Sample is taken from:**	☐ ongoing production ☑ stocks ☐ retained sample
		Number of samples:	1
Person in charge of sampling: (Name, company, telephone)	Jack Evans, Clayworks, 01326341339	**Signature of sample collector:**	
Where has the product been stored prior to sampling?	☐ production ☑ store ☐ miscellaneous	**How has the product been stored prior to sampling?**	☐ open ☐ in the stack ☑ wrapped up
Place of storage:		*Packing material:*	
Specifics (possible negative influences by air contamination where sample was taken, by petrol emissions, by solvent emissions from production; any other uncertainties, questions, etc).			
Cut edges (identification of cut edges when present and identification of new surfaces and surface to be exposed in the emission test):			
Confirmation from the applicant			
Herewith the signer confirms the correctness of the data given above. The sample was selected, drawn and packed personally in accordance with the instructions for the taking of samples.			
Date:	**Signature:**		

110

	(Stamp) [illegible] Rochym Rural [illegible] Lanes, [illegible] UK 7012 7AZ VAT no. GB 986755351 EORI. GB986755351000 Ltd Company Reg No: 4552140

Chain of custody

What is a Chain of custody?

Whenever the sample is handed over, please fill out the below information

Handed over between:	Initials + Signature	Date + Time	Condition
Handed over by	MR	24/02/25	Good
Handed over to	DHL		
Handed over by			
Handed over to			
Handed over by			
Handed over to			

Laboratory receiving details (date, condition of package and sample, assigned lab no.): 25/2-25, ok, 392-00100903

Receptionist, Eurofins Product Testing A/S:	Signature of receptionist:
Uqv	

111

7.3 How to Understand the Results

7.3.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
§	Deviation from method. Please see deviation section
a	The method is not optimal for very volatile compounds. For these substances smaller results and a higher measurement uncertainty cannot be ruled out
b	The component originates from the substrate and is thus removed
c	The results have been corrected by the emission from the substrate
d	Very polar organic compounds are not suitable for reliable quantification using Tenax TA adsorbent and HP-5ms GC column. A high degree of uncertainty must be expected
e	The component may be overestimated due to contribution from the system
SER	Specific Emission Rate

7.3.2 Explanation of ID Category

112

Categories of Identity:

1: Identified by comparison with a mass spectrum obtained from library and supported by other information and quantified through specific calibration.

2: Identified by comparison with a mass spectrum obtained from library and supported by other information. Quantified as toluene equivalent.

3: Identified with a lower match by comparison with a mass spectrum obtained from a library. Quantified as toluene equivalent.

4: Not identified, quantified as toluene equivalent.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4 Description of VOC Emission Test

7.4.1 Test Chamber

The test chamber is made of stainless steel. A multi-step air clean-up is performed before loading the chamber, and a blank check of the empty chamber is performed.
The chamber operation parameters are as described in the test method section. (EN 16516, ISO 16000-9, internal method no.: 71M549811).
The recovery rates in the climate test chamber have been investigated using toluene and n-dodecane. The mean recovery rates of toluene and n-dodecane were concluded to be between 95 % and 100 % depending on the chamber size. These values comply with the criteria of a minimum mean recovery rate of 80 % stated in the 16000-9 test method.
Air sampling from the test chamber is carried out in a clean test chamber room at ambient air pressure and 23 ± 1 °C.

7.4.2 Expression of the Test Results

All test results are calculated as specific emission rate, and as extrapolated air concentration in the European Reference Room (EN 16516, AgBB, EMICODE, M1 and Indoor Air Comfort).

7.4.3 Testing of Carcinogenic VOCs

The emission of carcinogens (EU Categories C1A and C1B, as per European law) is tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS (automated thermal desorption coupled with gas chromatography and mass spectroscopy using 30 m HP-5 (slightly polar) column with 0.25 mm ID and 0.25 µm film, Agilent) (EN 16516, ISO 16000-6, internal methods no.: 71M549812 / 71M542808B).

113

All identified carcinogenic VOCs are listed; if a carcinogenic VOC is not listed then it has not been detected. Quantification is performed using the TIC signal and authentic response factors, or the relative response factors relative to toluene for the individual compounds.

This test only covers substances that can be adsorbed on Tenax TA and can be thermally desorbed. If other emissions occur, then these substances cannot be detected (or with limited reliability only).

7.4.4 Testing of VOC

The emissions of volatile organic compounds are tested by drawing sample air from the test chamber outlet through Tenax TA tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using HP-5 column (30 m, 0.25mm ID, 0.25µm film).
This test only covers substances which can be adsorbed on Tenax TA and can be thermally desorbed. If emissions of substances outside these specifications occur then these substances cannot be detected (or with limited reliability only).

7.4.5 Testing of Aldehydes

The presence of aldehydes is tested by drawing air samples from the test chamber outlet through DNPH-coated silicagel tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by solvent desorption and subsequently by HPLC and UV-/diode array detection.

The absence of formaldehyde and other aldehydes is stated if UV detector response at the specific wavelength is lacking at the specific retention time in the chromatogram. Otherwise it is checked whether the reporting limit is exceeded. In this case the identity is finally checked by comparing full scan sample UV spectra with full scan standard UV spectra.

Conversions of specific aldehydes from µg/m³ to ppm are done by the ideal gas law using a temperature of 23 degree Celsius and standard atmospheric pressure.

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.4.6 Testing of Carboxen Tubes

The presence of low boiling VOC is tested by drawing air samples from the test chamber outlet through carboxen tubes after the specified duration of storage in the ventilated test chamber. Analysis is performed by ATD-GC/MS using a HP5-MS column. This test only covers substances which has a CREL value and are not possible to sample on Tenax tubes

7.5 Quality Assurance

Before loading the test chamber, a blank check of the empty chamber is performed and compliance with background concentrations in accordance with EN 16516 / ISO 16000-9 is determined.

Air sampling at the chamber outlet and subsequent analysis is performed in duplicate. Relative humidity, temperature and air change rate in the chambers is logged every 5 minutes and checked daily. A double determination is performed on random samples at a regular interval and results are registered in a control chart to ensure the uncertainty and reproducibility of the method.

The stability of the analytical system is checked by a general function test of device and column, and by use of control charts for monitoring the response of individual substances prior to each analytical sequence.

7.6 Accreditation

The testing methods described above are accredited online with EN ISO/IEC 17025 by DANAK (no. 522). This accreditation is valid worldwide due to mutual approvals of the national accreditation bodies (ILAC/IAF, see also www.eurofins.com/galten.aspx#accreditation).

Eurofins Product Testing Denmark A/S is notified body for the construction products regulation (EU) No 305/2011 with number NB 2657 under system 3. 114

Not all parameters are covered by this accreditation. The accreditation does not cover parameters marked with an asterisk (*), however analysis of these parameters is conducted at the same level of quality as for the accredited parameters.

7.7 Uncertainty of the Test Method

The relative standard deviation of the overall analysis is 22%. The expanded uncertainty Um equals 2 x RSD. For further information please visit www.eurofins.dk/product-testing/uncertainty/.

7.8 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

7.9 Version History

Report date	Report number	Modification
22/04/2025	392-2025-00100903_H_EN	Current version

115

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Attestation

LEED v4 and v4.1 BETA

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Smooth Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested in accordance with the relevant ISO 16000, EN 16516, CDPH 01350, and ASTM D2369 testing standards (See test report no. 392-2025-10100901_A_EN, 392-2025-10100901_H_EN and no. 392-2025-10100904_XG_EN). For deviations from test method see the original report.

The test results of the tested sample indicate that the product qualifies for LEED v4 and LEED v4.1 BETA (February 2024) projects globally by showing compliance with the specifications for VOC emissions and VOC content by complying with:

VOC emissions specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): CDPH-IAQ (California Department of Public Health (CDPH) Standard Method v1.2-2017); and a TVOC below 0.5 mg/m³ in both office and classroom.

VOC content specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): South Coast Air Quality Management District (SCAQMD) Rule 1113 (2016) for 'Flats' having a VOC content below 50 g/L

2 May 2025

Isabella B. Larsen
Analytical Service Manager

Janne Rothmann Norup
Analytical Service Manager

LEED® is the preeminent program for the design, construction, maintenance and operations of high-performance green buildings. USGBC® and the related logo are trademarks owned by the U.S. Green Building Council and are used with permission.

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

Attestation

LEED v4 and v4.1 BETA

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of a mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Rustic Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested in accordance with the relevant CDPH 01350, and ASTM D2369 testing standards (See test report no. 392-2025-00100902_A_EN and no. 392-2025-00100905_XG_EN).

The test results of the tested sample indicate that the product qualifies for LEED v4 and LEED v4.1 BETA (February 2024) projects globally by showing compliance with the specifications for VOC emissions and VOC content by complying with:

VOC emissions specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): CDPH-IAQ (California Department of Public Health (CDPH) Standard Method v1.2-2017); and a TVOC below 0.5 mg/m³ in both office and classroom.

VOC content specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): South Coast Air Quality Management District (SCAQMD) Rule 1113 (2016) for 'Flats' having a VOC content below 50 g/L.

5 May 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

LEED® is the preeminent program for the design, construction, maintenance and operations of high-performance green buildings. USGBC® and the related logo are trademarks owned by the U.S. Green Building Council and are used with permission.

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

Attestation

LEED v4 and v4.1 BETA

On the 25th of February 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Tadelakt Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested in accordance with the relevant ISO 16000, EN 16516, CDPH 01350, and ASTM D2369 testing standards (See test report no. 392-2025-00100903_A_EN and 392-2025-00100906_XG_EN).

The test results of the tested sample indicate that the product qualifies for LEED v4 and LEED v4.1 BETA (February 2024) projects globally by showing compliance with the specifications for VOC emissions and VOC content by complying with:

VOC emissions specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): CDPH-IAQ (California Department of Public Health (CDPH) Standard Method v1.2-2017); and a TVOC below 0.5 mg/m³ in both office and classroom.

VOC content specifications in LEED EQ credit "Low-Emitting Materials" for LEED projects globally:

- The requirements of LEED v4 and LEED v4.1 BETA (February 2024): South Coast Air Quality Management District (SCAQMD) Rule 1113 (2016) for 'Flats' having a VOC content below 50 g/L.

22 April 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

LEED® is the preeminent program for the design, construction, maintenance and operations of high-performance green buildings. USGBC® and the related logo are trademarks owned by the U.S. Green Building Council and are used with permission.

Attestation

BREEAM®

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Smooth Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested as in accordance with the relevant EN 16516, ISO 16000-3, ISO 16000-6, ISO 16000-9, and ISO 16000-11 testing standards (See test report no.392-2025-10100901_A_EN).

The test results of the tested sample indicate that the product qualifies for the below mentioned BREEAM specifications on VOC emissions by complying with:

- **BREEAM® International: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM International: New Construction 2021, Technical Manual – SD250: Hea 02 Indoor Air Quality (version 6.0. of December 2021).
- **BREEAM® UK: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM UK: New Construction 2024, Technical Manual - SD5079: Hea 02 Indoor Air Quality (version 6.1.2 of November 2024).
- **BREEAM® NL: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NL: Nieuwbouw en Renovatie Woningen 2023, Technical Manual: Hea 03 Gezonde binnenlucht (Version 1.01 of June 2023). (Version 1.01 of June 2023).
- **BREEAM® SE: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM SE: New Construction 2021, Technical Manual: Hea 02 Indoor Air Quality (version 6.0. of January 2023).
- **BREEAM® NOR: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NOR: New Construction 2024, Technical Manual - SD5076NOR, Hea 02 Indoor Air Quality (version 6.1.1 of December 2024).

2 May 2025

Isabella B. Larsen
Analytical Service Manager

Janne Rothmann Norup
Analytical Service Manager

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

eurofins

Attestation

BREEAM®

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of a mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Rustic Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested as in accordance with the relevant EN 16516, ISO 16000-3, ISO 16000-6, ISO 16000-9, and ISO 16000-11 testing standards (See test report no.392-2025-00100902_A_EN).

The test results of the tested sample indicate that the product qualifies for the below mentioned BREEAM specifications on VOC emissions by complying with:

- **BREEAM® International: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM International: New Construction 2021, Technical Manual – SD250: Hea 02 Indoor Air Quality (version 6.0. of December 2021).
- **BREEAM® UK: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM UK: New Construction 2024, Technical Manual - SD5079: Hea 02 Indoor Air Quality (version 6.1.2 of November 2024).
- **BREEAM® NL: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NL: Nieuwbouw en Renovatie Woningen 2023, Technical Manual: Hea 03 Gezonde binnenlucht (Version 1.01 of June 2023). (Version 1.01 of June 2023).
- **BREEAM® SE: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM SE: New Construction 2021, Technical Manual: Hea 02 Indoor Air Quality (version 6.0. of January 2023).
- **BREEAM® NOR: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NOR: New Construction 2024, Technical Manual - SD5076NOR, Hea 02 Indoor Air Quality (version 6.1.1 of December 2024)

120

5 May 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

Attestation

BREEAM®

On the 25th of February 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Tadelakt Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product, and it has been tested as in accordance with the relevant EN 16516, ISO 16000-3, ISO 16000-6, ISO 16000-9, and ISO 16000-11 testing standards (See test report no. 392-2025-00100903_A_EN).

The test results of the tested sample indicate that the product qualifies for the below mentioned BREEAM specifications on VOC emissions by complying with:

- **BREEAM® International: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM International: New Construction 2021, Technical Manual – SD250: Hea 02 Indoor Air Quality (version 6.0. of December 2021).
- **BREEAM® UK: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM UK: New Construction 2024, Technical Manual - SD5079: Hea 02 Indoor Air Quality (version 6.1.2 of November 2024).
- **BREEAM® NL: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NL: Nieuwbouw en Renovatie Woningen 2023, Technical Manual: Hea 03 Gezonde binnenlucht (Version 1.01 of June 2023). (Version 1.01 of June 2023).
- **BREEAM® SE: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM SE: New Construction 2021, Technical Manual: Hea 02 Indoor Air Quality (version 6.0. of January 2023).
- **BREEAM® NOR: Compliance with 'Exemplary' criteria on VOC emission** of BREEAM NOR: New Construction 2024, Technical Manual - SD5076NOR, Hea 02 Indoor Air Quality (version 6.1.1 of December 2024).

22 April 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

Attestation

WELL Building Standard™

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Smooth Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product. Sampling, testing and evaluation were performed in accordance with the CDPH 01350 (January 2017)/AgBB (2024)/EN 16516 (2017) with EU LCI VOC threshold values and ASTM D2369-20 test standards (See test report no. 392-2025-10100901_H_EN and 392-2025-10100904_XG_EN). For deviations from test method see the original report.

The tested product complies with the requirements of WELL v2 Feature X06 VOC Restrictions: Part 1 by complying with:

VOC emissions specifications:

- The requirements of the CDPH 01350 v 1.2 (January 2017)
- The requirements of AgBB (2024)

VOC content specifications:

- The requirement of SCAQMD Rule 1113 (Architectural coatings, 2016) for 'Flats' having a VOC content below 50 g/L

2 May 2025

Isabella B. Larsen
Analytical Service Manager

Janne Rothmann Norup
Analytical Service Manager

The International WELL Building Institute (IWBI) is a public benefit corporation whose mission is to improve human health and well-being in buildings and communities across the world through its WELL Building Standard (WELL). WELL™ and the related logo are trademarks owned by the IWBI and are used with permission.

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

Attestation

WELL Building Standard™

On the 18th of March 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion based finishing and top plaster with the product name:

Clayworks Rustic Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product. Sampling, testing and evaluation were performed in accordance with the CDPH 01350 (January 2017) and ASTM D2369-20 test standards (See test report no. 392-2025-00100902_H_EN and 392-2025-00100905_XG_EN).

The tested product complies with the requirements of WELL v2 Feature X06 VOC Restrictions: Part 1 by complying with:

123

VOC emissions specifications:

- The requirements of the CDPH 01350 v 1.2 (January 2017)

VOC content specifications:

- The requirement of SCAQMD Rule 1113 (Architectural coatings, 2016) for 'Flats' having a VOC content below 50 g/L

5 May 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The International WELL Building Institute (IWBI) is a public benefit corporation whose mission is to improve human health and well-being in buildings and communities across the world through its WELL Building Standard (WELL). WELL™ and the related logo are trademarks owned by the IWBI and are used with permission.

Attestation

WELL Building Standard™

On the 25th of February 2025, Eurofins Product Testing A/S received a sample of mineral- and dispersion-based finishing and top plaster with the product name:

Clayworks Tadelakt Finish

supplied by

Clayworks

The sample was supplied as being representative of the manufactured product. Sampling, testing and evaluation were performed in accordance with the CDPH 01350 (January 2017) and ASTM D2369-20 test standards (See test report no. 392-2025-00100903_H_EN and 392-2025-00100906_XG_EN).

The tested product complies with the requirements of WELL v2 Feature X06 VOC Restrictions: Part 1 by complying with:

VOC emissions specifications:

- The requirements of the CDPH 01350 v 1.2 (January 2017)

VOC content specifications:

- The requirement of SCAQMD Rule 1113 (Architectural coatings, 2016) for 'Flats' having a VOC content below 50 g/L.

22 April 2025

Isabella B. Larsen
Analytical Service Manager

Rasmus Verdier
Analytical Service Manager

The International WELL Building Institute (IWBI) is a public benefit corporation whose mission is to improve human health and well-being in buildings and communities across the world through its WELL Building Standard (WELL). WELL™ and the related logo are trademarks owned by the IWBI and are used with permission.

Eurofins Product Testing Denmark A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
www.eurofins.dk/product-testing

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

TEST REPORT
VOC Content

1 April 2025

1 Sample Information

Sample name	Clayworks Smooth Finish
Sample no.	392-2025-10100904
Stated production date	11/02/2025
Batch No.	-
Sample reception	18/03/2025

125

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
SCAQMD Rule 1113	Pass	February 2016
LEED v4.1 (VOC Content)	Pass	July 2024

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix

Janne Rothmann Norup
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Scope	Version
SCAQMD Rule 1113	Architectural coatings	February 2016

3.2 Specific Laboratory Sampling and Analyses

Test	Regulation, protocol or standard	Version	Internal SOP	Limit of detection	Uncertainty Um¤
				[g/L]	%
Solids Content	ASTM D2369	2024	71 M 544830	1	10
VOC	ASTM D2369/ SCAQMD Rule 1113	2024/2016	71 M 544830	1	10
Density *	Internal method	-	71 M 543130	-	10

3.3 Preparation of the Test Specimen

The sample was mixed according to the manufacturers specification. The mixing ratio was 100 g sample with 20 g water. The sample was homogenised and applied directly onto the test dish.

126

4 Results

4.1 VOC content

	Remarks on the test results	Results	Unit
Density *	Tested by the lab	1.89	g/mL
Water content *	Calculated from mixing ratio	17	% (w/w)
Exempt compounds *	Assumed to be 0	0	% (w/w)
Solids Content	Tested by the lab	84.7	% (w/w)
VOC content (less water)	Calculated based on the results above	< 1	g/L

4.2 Comparison with Limit Values of VOC Content (less Water)

Parameters	Results	Product type	Regulation or protocol	VOC limit
	[g/L]			[g/L]
VOC content	< 1	Flats	SCAQMD Rule 1113	50

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Appendices

5.1 How to Understand the Results

5.1.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
1	Analysed by another Eurofins laboratory

5.2 Description of VOC Content Test

5.2.1 Testing of VOC

Volatile content of the sample was determined gravimetrically by heating to 110 °C in 60 minutes. Multicomponent products are mixed according to the manufacturer's instructions and allowed to cure before heating.
The result is the average of two replicates. The result was calculated as:

$$VOC = \frac{([g\ All\ Volatiles] - [g\ Water] - [g\ Exempt\ Compounds])}{([liter\ Material] - [liter\ Water] - [liter\ Exempt\ Compounds])}$$

127

5.2.2 Testing of Density

The density was calculated using gravimetric and volumetric determination. The result is the average of three determinations.

5.3 Uncertainty of the Test Method

Um(%): The expanded uncertainty Um is equal to 2 x RSD%.

5.4 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5.5 Version History

Report date	Report number	Modification
01/04/2025	392-2025-10100904_XG_EN	Current version

128

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

TEST REPORT
VOC Content

1 April 2025

1 Sample Information

Sample name	Clayworks Rustic Finish
Sample no.	392-2025-00100905
Stated production date	10/03/2025
Batch No.	-
Sample reception	25/02/2025

129

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
SCAQMD Rule 1113	Pass	February 2016
LEED v4.1 (VOC Content)	Pass	July 2024

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix

Janne Rothmann Norup
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Scope	Version
SCAQMD Rule 1113	Architectural coatings	February 2016

3.2 Specific Laboratory Sampling and Analyses

Test	Regulation, protocol or standard	Version	Internal SOP	Limit of detection	Uncertainty Um¤
				[g/L]	%
Solids Content	ASTM D2369	2024	71 M 544830	1	10
VOC	ASTM D2369/ SCAQMD Rule 1113	2024/2016	71 M 544830	1	10
Density *	Internal method	-	71 M 543130	-	10

3.3 Preparation of the Test Specimen

The sample was mixed according to the manufacturers specification. The mixing ratio was 100 g sample with 20 g water. The sample was homogenised and applied directly onto the test dish.

130

4 Results

4.1 VOC content

	Remarks on the test results	Results	Unit
Density *	Tested by the lab	2.02	g/mL
Water content *	Calculated from mixing ratio	17	% (w/w)
Exempt compounds *	Assumed to be 0	0	% (w/w)
Solids Content	Tested by the lab	86.8	% (w/w)
VOC content (less water)	Calculated based on the results above	< 1	g/L

4.2 Comparison with Limit Values of VOC Content (less Water)

Parameters	Results	Product type	Regulation or protocol	VOC limit
	[g/L]			[g/L]
VOC content	< 1	Flats	SCAQMD Rule 1113	50

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Appendices

5.1 How to Understand the Results

5.1.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
1	Analysed by another Eurofins laboratory

5.2 Description of VOC Content Test

5.2.1 Testing of VOC

Volatile content of the sample was determined gravimetrically by heating to 110 °C in 60 minutes. Multicomponent products are mixed according to the manufacturer's instructions and allowed to cure before heating.
The result is the average of two replicates. The result was calculated as:

$$VOC = \frac{([g\ All\ Volatiles] - [g\ Water] - [g\ Exempt\ Compounds])}{([liter\ Material] - [liter\ Water] - [liter\ Exempt\ Compounds])}$$

131

5.2.2 Testing of Density

The density was calculated using gravimetric and volumetric determination. The result is the average of three determinations.

5.3 Uncertainty of the Test Method

Um(%): The expanded uncertainty Um is equal to 2 x RSD%.

5.4 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5.5 Version History

Report date	Report number	Modification
01/04/2025	392-2025-00100905_XG_EN	Current version

132

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

Eurofins Product Testing Denmark A/S
Smedeskovvej 38
8464 Galten
Denmark

DK-CustomerSupport@cpt.eurofinseu.com
www.eurofins.com

Clayworks
Clayworks Higher Bochym Workshops
Cross Lanes, Helston
TR12 7AZ Truro
UNITED KINGDOM

TEST REPORT
VOC Content

1 April 2025

1 Sample Information

Sample name	Clayworks Tadelakt Finish
Sample no.	392-2025-00100906
Stated production date	02/12/2024
Batch No.	-
Sample reception	25/02/2025

133

2 Brief Evaluation of the Results

Regulation or protocol	Conclusion	Version of regulation or protocol
SCAQMD Rule 1113	Pass	February 2016
LEED v4.1 (VOC Content)	Pass	July 2024

Full details based on the testing and direct comparison with limit values are available in the following pages
Regarding pass/fail decision rule please see appendix

Janne Rothmann Norup
Analytical Service Manager

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

3 Applied Test Methods

3.1 General Test References

Regulation, protocol or standard	Scope	Version
SCAQMD Rule 1113	Architectural coatings	February 2016

3.2 Specific Laboratory Sampling and Analyses

Test	Regulation, protocol or standard	Version	Internal SOP	Limit of detection	Uncertainty Um¤
				[g/L]	%
Solids Content	ASTM D2369	2024	71 M 544830	1	10
VOC	ASTM D2369/ SCAQMD Rule 1113	2024/2016	71 M 544830	1	10
Density *	Internal method	-	71 M 543130	-	10

3.3 Preparation of the Test Specimen

The sample was mixed according to the manufacturers specification. The mixing ratio was 100 g sample with 26 g water. The sample was homogenised and applied directly onto the test dish.

134

4 Results

4.1 VOC content

	Remarks on the test results	Results	Unit
Density *	Tested by the lab	1.91	g/mL
Water content *	Calculated from mixing ratio	20	% (w/w)
Exempt compounds *	Assumed to be 0	0	% (w/w)
Solids Content	Tested by the lab	95	% (w/w)
VOC content (less water)	Calculated based on the results above	< 1	g/L

4.2 Comparison with Limit Values of VOC Content (less Water)

Parameters	Results	Product type	Regulation or protocol	VOC limit
	[g/L]			[g/L]
VOC content	< 1	Flats	SCAQMD Rule 1113	50

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5 Appendices

5.1 How to Understand the Results

5.1.1 Acronyms Used in the Report

<	Means less than
>	Means bigger than
*	Not a part of our accreditation
¤	Please see section regarding uncertainty in the Appendices
1	Analysed by another Eurofins laboratory

5.2 Description of VOC Content Test

5.2.1 Testing of VOC

Volatile content of the sample was determined gravimetrically by heating to 110 °C in 60 minutes. Multicomponent products are mixed according to the manufacturer's instructions and allowed to cure before heating.
The result is the average of two replicates. The result was calculated as:

$$VOC = \frac{([g\ All\ Volatiles] - [g\ Water] - [g\ Exempt\ Compounds])}{([liter\ Material] - [liter\ Water] - [liter\ Exempt\ Compounds])}$$

135

5.2.2 Testing of Density

The density was calculated using gravimetric and volumetric determination. The result is the average of three determinations.

5.3 Uncertainty of the Test Method

Um(%): The expanded uncertainty Um is equal to 2 x RSD%.

5.4 Decision Rules

Eurofins Product Testing A/S, declare statement of conformity based on the “Binary Statement for Simple Acceptance Rule” described in ILAC’s “Guidelines on decision Rules and Statements of Conformity” ILAC-G8:09/2019.

This means that results above the detection limit are always reported with two significant digits. Results are evaluated with the same number of significant digits as the corresponding limit values, and conformity is based on results being less than or equal to limit values.

For limit values with more than two significant digits, the third digit will be used to confirm whether a result is below or equal to the limit value. It will always be indicated in the evaluation table if this expanded evaluation is performed.

For further information, please visit www.eurofins.dk/product-testing/om-os/beslutningsregler/

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.

5.5 Version History

Report date	Report number	Modification
01/04/2025	392-2025-00100906_XG_EN	Current version

136

The analysis are carried out on the sample(s) as received and the result(s) are only valid for the tested sample(s).
This report may only be copied or reprinted in its entirety.