

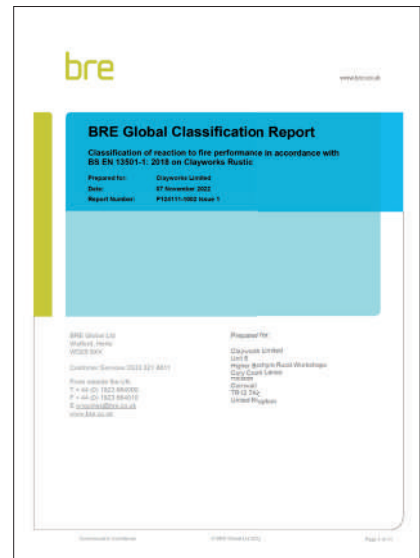


Clayworks

FIRE RATINGS FOR
CLAYWORKS PLASTERS



GLOBAL CLASSIFICATION REPORT
CLAYWORKS SMOOTH



GLOBAL CLASSIFICATION REPORT
CLAYWORKS RUSTIC



GLOBAL CLASSIFICATION REPORT
CLAYWORKS EXTERIOR



GLOBAL CLASSIFICATION REPORT
CLAYWORKS TADELAKT

FIRE RATINGS FOR CLAYWORKS PLASTERS:

SMOOTH, TONAL, DEMI RUSTIC AND RUSTIC CLAY PLASTERS
CLAYWORKS CUSTOM FINISHES
CLAYWORKS TADELAKT AND EXTERIOR FINISHES
ACHIEVED EUROCLASS A1 FIRE RATING

BRE Global Classification Report

**Classification of reaction to fire performance in accordance with
BS EN 13501-1: 2018 on Clayworks Smooth Topcoat**

Prepared for: Clayworks Limited
Date: 07 November 2022
Report Number: P124112-1002 Issue 1

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Prepared for:

Clayworks Limited
Unit 5
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Cornwall
TR12 7AZ
United Kingdom



Prepared by

Name C A Rock

Position Principal Consultant

Signature

A handwritten signature in blue ink that reads 'CA Rock'.

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 07 November 2022

Signature

A handwritten signature in black ink that reads 'J Hunter'.

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BRE Global's liability in respect of this report and reliance thereupon shall be as per the terms and conditions of contract with the client and BRE Global shall have no liability to third parties to the extent permitted in law.



Table of Contents

1	Introduction	4
2	Details of classified product	5
2.1	General	5
2.2	Product description	5
2.2.1	Traceability	5
2.2.2	Sample details	5
3	Reports & results in support of this classification	7
3.1	Reports	7
3.2	Results	7
4	Classification and field of application	8
4.1	Reference of classification	8
4.2	Classification	8
4.3	Field of application	8
5	Limitations	9
6	References	9
Appendix A	Sample description	10
	Table A.1: Test sponsor's product description	10
	Figure A.1: Test sample as received (BS EN ISO 1182)	11
	Figure A.2: Test sample as received (BS EN ISO 1716)	11



1 Introduction

This classification report defines the classification assigned to 'Clayworks Smooth Topcoat' in accordance with the procedures given in BS EN 13501-1: 2018¹.

BRE Global

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH BS EN 13501-1: 2018

Sponsor:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Prepared for:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Manufacturer:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Place of Manufacture:	Cornwall, United Kingdom
Prepared by:	BRE Global, Bucknalls Lane, Garston, Watford, Hertfordshire, WD25 9XX, UK
Notified Body No.:	0832
Product name:	Clayworks Smooth Topcoat
Classification report No.:	P124112-1002
Issue number:	One
Date of issue:	16 October 2022

This classification report consists of 11 pages and may only be used or reproduced in its entirety.



2 Details of classified product

2.1 General

The product, 'Clayworks Smooth Topcoat', is defined by the test sponsor as a clay plastering mortar in accordance with BS EN 998-1².

2.2 Product description

The product, 'Clayworks Smooth Topcoat', is described in section 2.2.2.

2.2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for test and the products supplied to market. The results apply to the samples as received.

2.2.2 Sample details

Unless otherwise stated all measurements are nominal.

Parameter	Details
Test sponsor	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Prepared for	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Manufacturer of sample	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Place of manufacture	Cornwall, United kingdom
Place of manufacture	Clayworks Smooth Topcoat
Sample reference	Smooth Topcoat
Sample description (as provided by test sponsor/manufacturer)	Smooth finish clay plaster. The test sponsor's product description is shown in Appendix A of this



Parameter	Details
	report.
Description of sample (as received)	An off-white granular material ground to a fine powder by a representative of BRE Global and a set of off-white cylinders meeting the dimension requirements specified in BS EN ISO 1182 ² . The test samples as received are shown in Appendix A of this report.
Test sponsor's product data	
Generic type of product	Clay plaster
Nominal thickness of product (mm)	Various
Nominal density of product (kg/m ³)	1600
Nominal mass per unit area of product (kg/m ²)	Various, dependant on thickness
Colour	Off-white (determined by BRE Global)
Finish	Smooth
Flame retardant treatment added, or organic content limited during production (yes/no)	No
European product standard, if applicable	BS EN 998-1 ²
Substrate and ventilation conditions	
Generic type of substrate	None
ventilation condition	
Type of air gap	None
Measured sample data, measured by BRE Global, determined by BRE Global at 23 °C ± 2 °C and 50% ± 5% RH (Based on BS EN ISO 1182 test specimens, Batch 1)	
Mean sample density (kg/m ³)	1674.7 (range 1643.2 to 1721.6)
Measured sample data, measured by BRE Global, determined by BRE Global at 23 °C ± 2 °C and 50% ± 5% RH (Based on BS EN ISO 1182 test specimens, Batch 2)	
Mean sample height (mm)	49.52 (range 49.11 to 49.86)
Mean sample mass per unit area (kg/m ²)	83.35 (range 80.03 to 84.89)
Mean sample density (kg/m ³)	1683.0 (range 1629.6 to 1704.3)
Test information	
Face to be tested	Not applicable, homogeneous
Orientation aspects	Not applicable
Test sponsor's sampling identification	Note 1
BRE Global sample number	E14392 and E14485
Additional information	None

Note 1: This information was not supplied by the test sponsor.



3 Reports & results in support of this classification

3.1 Reports

Name of Laboratory	Name of test sponsor	Test reports Nos.	Test method/field of application rules
BRE Global	Clayworks Limited	P124112-1000 Issue 1	EN ISO 1182 ³
BRE Global	Clayworks Limited	P124112-1001 Issue 1	EN ISO 1716 ⁴

3.2 Results

Test method & test number	Parameter	No. test runs	Results	
			Continuous parameter - mean (m)	Compliance with parameters Criterion / Compliance status, A1
BS EN ISO 1182 P124112-1000 Tested: 05/10/2022 & 10/10/2022 E14485	ΔT	5	0.45 °C	$\Delta T \leq 30 \text{ °C}$ / Compliant
	Δm		4.9 %	$\Delta m \leq 50 \text{ %}$ / Compliant
	t_f		0 s	$t_f = 0$ / Compliant
BS EN ISO 1716 P124112-1001 Tested: 02/09/2022 & 16/09/2022 E14392	Q_{PCS}	3	0.24 MJ/kg	$Q_{PCS} \leq 2.0 \text{ MJ/kg}$ / Compliant



4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with BS EN 13501-1: 2018.

4.2 Classification

The product, 'Clayworks Smooth Topcoat', in relation to reaction to fire behaviour is classified:

A1

The additional classification in relation to smoke production is:

-

The additional classification in relation to flaming droplets / particles is:

-

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire Behaviour		Smoke Production		Flaming Droplets
A1	-	s	-	, d -

i.e., A1

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for:

- i) Clay plastering mortar.

And the following product and mounting and fixing parameters:

Parameter	Field of application
Colour	Off-white. As tested. no variation in colour allowed.
Finish	As tested. No variation in finish allowed.
Composition	As tested. No variation in composition allowed.
Facing	None. No variation allowed.
Overall thickness	Valid for all thicknesses
Density	Nominal 1600. 1683.0 kg/m ³ (range 1629.6 kg/m ³ to 1704.3 kg/m ³) measured by BRE. No variation in density allowed.



5 Limitations

This classification document does not represent type approval or certification of the product.

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures, or stages (e.g., no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence, the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

The information in Section 2.2.2 of this report, other than that indicated otherwise, was supplied by the test sponsor and was not independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

Because of the nature of reaction to fire testing and the consequent difficulty in quantifying the uncertainty of measurement of reaction to fire, it is not possible to provide a stated degree of accuracy of the results.

6 References

1. BS EN 13501-1: 2018. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests. BSI, London. 2018.
2. BS EN 998-1: 2016. Specification for mortar for masonry. Part 1: Rendering and plastering mortar. BSI, London. 2016.
3. BS EN ISO 1182: 2020. Reaction to fire tests for products - Non-combustibility test. BSI, London. 2020.
4. BS EN ISO 1716: 2018. Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value). BSI, London. 2018.



Appendix A Sample description

Table A.1: Test sponsor's product description

Test sponsor Clayworks Ltd., Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Cornwall TR127AZ	
Parameter	Details
Trade name of product tested	Clayworks Smooth Topcoat
General description of product tested	Smooth Finish Clay Plaster
Name and address of manufacturer of product	Clayworks Ltd, Unit 5 Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall TR12 7AZ
Place of manufacture	Cornwall, UK
Product reference/number	Smooth Topcoat
Overall thickness	2 mm
Overall density	1600 kg/m ³
Overall mass per unit area	3.125 kg/m ²
Generic type of product	Clay Plaster
Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details	None
Harmonised EN product standard , and AVCP System No. if applicable	Note 1
Product breakdown	
Core material	- Generic type Clay Plaster
	- Product reference/name Smooth Topcoat
	- Manufacturer Clayworks Ltd
	- Batch No. Note 1
	- Thickness 2 mm
	- Mass per unit area/ density 3.125 kg/m ²
	- Colour reference Note 1
	- Trade name flame retardant Note 1
	- Generic type flame retardant Note 1
	- Amount flame retardant Note 1
Sampling Identification Reference (if applicable)	Note 1
Additional information	Note 1

Note 1: This information was not supplied by the test sponsor.

bre

Figure A.1: Test sample as received (BS EN ISO 1182)

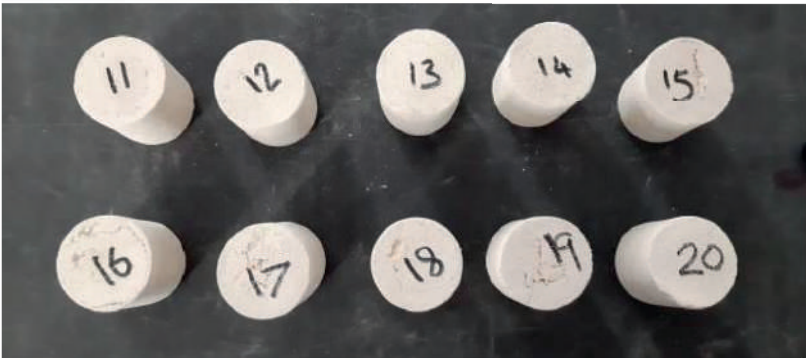
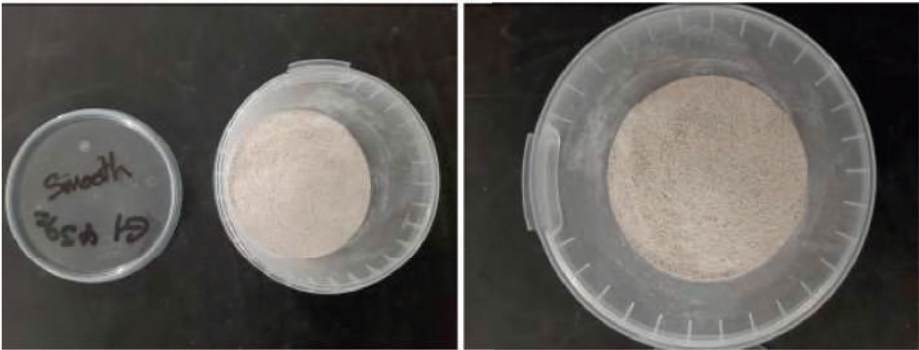


Figure A.2: Test sample as received (BS EN ISO 1716)





BRE Global Classification Report

**Classification of reaction to fire performance in accordance with
BS EN 13501-1: 2018 on Clayworks Rustic**

Prepared for: Clayworks Limited
Date: 07 November 2022
Report Number: P124111-1002 Issue 1

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Helston
Cornwall
TR12 7AZ
United Kingdom



Prepared by

Name C A Rock

Position Principal Consultant

Signature

A handwritten signature in blue ink that reads 'CA Rock'.

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 07 November 2022

Signature

A handwritten signature in black ink that reads 'J Hunter'.

This report is made on behalf of BRE Global and may only be distributed in its entirety, without amendment, and with attribution to BRE Global Ltd to the extent permitted by the terms and conditions of the contract. Test results relate only to the specimens tested. BRE Global has no responsibility for the design, materials, workmanship or performance of the product or specimens tested. This report does not constitute an approval, certification or endorsement of the product tested and no such claims should be made on websites, marketing materials, etc. Any reference to the results contained in this report should be accompanied by a copy of the full report, or a link to a copy of the full report.

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[Table of Contents](#)

1	Introduction	4
2	Details of classified product	5
2.1	General	5
2.2	Product description	5
2.2.1	Traceability	5
2.2.2	Sample details	5
3	Reports & results in support of this classification	7
3.1	Reports	7
3.2	Results	7
4	Classification and field of application	8
4.1	Reference of classification	8
4.2	Classification	8
4.3	Field of application	8
5	Limitations	9
6	References	9
Appendix A	Product description	10
	Table A.1: Test sponsor's product description	10
	Figure A.1: Test sample as received (BS EN ISO 1182)	11
	Figure A.2: Test sample as received (BS EN ISO 1716)	11



1 Introduction

This classification report defines the classification assigned to 'Clayworks Rustic' in accordance with the procedures given in BS EN 13501-1: 2018¹.

BRE Global

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH BS EN 13501-1: 2018

Sponsor:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Prepared for:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Manufacturer:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Place of Manufacture:	Cornwall, United Kingdom
Prepared by:	BRE Global, Bucknalls Lane, Garston, Watford, Hertfordshire, WD25 9XX, UK
Notified Body No.:	0832
Product name:	Clayworks Rustic
Classification report No.:	P124111-1002
Issue number:	One
Date of issue:	16 September 2022

This classification report consists of 11 pages and may only be used or reproduced in its entirety.



2 Details of classified product

2.1 General

The product, 'Clayworks Rustic', is defined by the test sponsor as a clay plastering mortar in accordance with BS EN 998-1².

2.2 Product description

The product, 'Clayworks Rustic', is described in section 2.2.2.

2.2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for test and the products supplied to market. The results apply to the samples as received.

2.2.2 Sample details

Unless otherwise stated all measurements are nominal.

Parameter	Details
Test sponsor	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Prepared for	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Manufacturer of sample	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Place of manufacture	Cornwall, United Kingdom
Place of manufacture	Clayworks Rustic
Sample reference	Rustic
Sample description (as provided by test sponsor/manufacturer)	Rustic Finish Clay Plaster. The test sponsor's product description is shown in Appendix A of this



Parameter	Details
	report.
Description of sample (as received)	A light brown/buff coloured granular material ground to a fine powder by a representative of BRE Global and a set of light brown/buff coloured cylinders meeting the dimension requirements specified in BS EN ISO 1182 ² . The test samples as received are shown in Appendix A of this report.
Test sponsor's product data	
Generic type of product	Clay plaster
Nominal thickness of product (mm)	Various
Nominal density of product (kg/m ³)	1722
Nominal mass per unit area of product (kg/m ²)	Various, dependant on thickness
Colour	Light brown/buff (determined by BRE Global)
Finish	Rustic
Flame retardant treatment added, or organic content limited during production (yes/no)	No
European product standard, if applicable	BS EN 998-1 ²
Substrate and ventilation conditions	
Generic type of substrate	None
ventilation condition	
Type of air gap	None
Measured sample data, measured by BRE Global, determined by BRE Global at 23 °C ± 2 °C and 50% ± 5% RH (Based on BS EN ISO 1182 test specimens)	
Mean sample height (mm)	49.36 (range 49.71 to 49.87)
Mean sample mass per unit area (kg/m ²)	83.38 (range 81.00 to 84.69)
Mean sample density (kg/m ³)	1689.2 (range 1666.2 to 1703.2)
Test information	
Face to be tested	Not applicable, homogeneous
Orientation aspects	Not applicable
Test sponsor's sampling identification	Note 1
BRE Global sample number	E14387 and E14391
Additional information	None

Note 1: This information was not supplied by the test sponsor.



3 Reports & results in support of this classification

3.1 Reports

Name of Laboratory	Name of test sponsor	Test reports Nos.	Test method/field of application rules
BRE Global	Clayworks Limited	P124111-1000 Issue 1	EN ISO 1182 ³
BRE Global	Clayworks Limited	P124111-1001 Issue 1	EN ISO 1716 ⁴

3.2 Results

Test method & test number	Parameter	No. test runs	Results	
			Continuous parameter - mean (m)	Compliance with parameters Criterion / Compliance status, A1
BS EN ISO 1182 P124111-1000 Tested: 09/09/2022, 13/09/2022 & 14/09/2022 E14387	ΔT	5	0.46 °C	$\Delta T \leq 30$ °C / Compliant
	Δm		1.4 %	$\Delta m \leq 50$ % / Compliant
	t_f		0 s	$t_f = 0$ / Compliant
BS EN ISO 1716 P124111-1001 Tested: 16/09/2022 E14391	Q_{PCS}	3	0.16 MJ/kg	$Q_{PCS} \leq 2.0$ MJ/kg / Compliant



4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with BS EN 13501-1: 2018.

4.2 Classification

The product, 'Clayworks Rustic', in relation to reaction to fire behaviour is classified:

A1

The additional classification in relation to smoke production is:

-

The additional classification in relation to flaming droplets / particles is:

-

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire Behaviour		Smoke Production		Flaming Droplets
A1	-	s	-	, d -

i.e., A1

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for:

- i) Clay plaster.

And the following product and mounting and fixing parameters:

Parameter	Field of application
Colour	Light brown/buff. As tested, no variation in colour allowed.
Finish	As tested. No variation in finish allowed.
Composition	As tested. No variation in composition allowed.
Facing	None. No variation allowed.
Overall thickness	Valid for all thicknesses
Density	Nominal 1722 (1689.2 kg/m ³ ± 23 kg/m ³ measured by BRE). No variation in density allowed.



5 Limitations

This classification document does not represent type approval or certification of the product.

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures, or stages (e.g., no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence, the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

The information in Section 2.2.2 of this report, other than that indicated otherwise, was supplied by the test sponsor and was not independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

Because of the nature of reaction to fire testing and the consequent difficulty in quantifying the uncertainty of measurement of reaction to fire, it is not possible to provide a stated degree of accuracy of the results.

6 References

1. BS EN 13501-1: 2018. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests. BSI, London. 2018.
2. BS EN 998-1: 2016. Specification for mortar for masonry. Part 1: Rendering and plastering mortar. BSI, London. 2016.
3. BS EN ISO 1182: 2020. Reaction to fire tests for products - Non-combustibility test. BSI, London. 2020.
4. BS EN ISO 1716: 2018. Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value). BSI, London. 2018.



Appendix A Product description

Table A.1: Test sponsor's product description

Test sponsor Clayworks Ltd., Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Cornwall TR127AZ	
Parameter	Details
Trade name of product tested	Clayworks Rustic
General description of product tested	Rustic Finish Clay Plaster
Name and address of manufacturer of product	Clayworks Ltd, Unit 5 Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall TR12 7AZ
Place of manufacture	Cornwall, UK
Product reference/number	Rustic
Overall thickness	8 mm
Overall density	1722 kg/m ³
Overall mass per unit area	16.65 kg/m ²
Generic type of product	Clay Plaster
Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details	None
Harmonised EN product standard , and AVCP System No. if applicable	Note 1
Product breakdown	
Core material	- Generic type Clay Plaster
	- Product reference/name Rustic
	- Manufacturer Clayworks Ltd
	- Batch No. Note 1
	- Thickness 8 mm
	- Mass per unit area/ density 16.65 kg/m ²
	- Colour reference Note 1
	- Trade name flame retardant Note 1
	- Generic type flame retardant Note 1
	- Amount flame retardant Note 1
Sampling Identification Reference (if applicable)	Note 1
Additional information	Note 1

Note 1: This information was not supplied by the test sponsor.

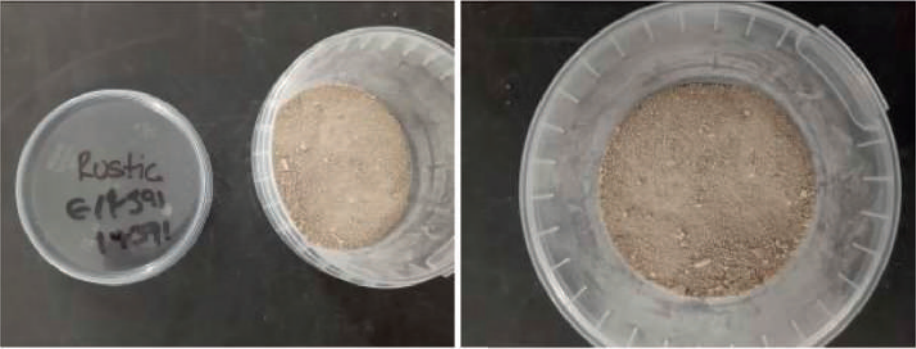
Clayworks



Figure A.1: Test sample as received (BS EN ISO 1182)



Figure A.2: Test sample as received (BS EN ISO 1716)





BRE Global Classification Report

Classification of reaction to fire performance in accordance with
BS EN 13501-1: 2018 on Clayworks Exterior Finishes

Prepared for: Clayworks Limited
Date: 07 November 2022
Report Number: P124110-1002 Issue 1

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United Kingdom



Prepared by

Name C A Rock

Position Principal Consultant

Signature 

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 07 November 2022

Signature 

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[Table of Contents](#)

1	Introduction	4
2	Details of classified product	5
2.1	General	5
2.2	Product description	5
2.2.1	Traceability	5
2.2.2	Sample details	5
3	Reports & results in support of this classification	7
3.1	Reports	7
3.2	Results	7
4	Classification and field of application	8
4.1	Reference of classification	8
4.2	Classification	8
4.3	Field of application	8
5	Limitations	9
6	References	9
Appendix A	Product description	10
	Table A.1: Test sponsor's product description	10
	Figure A.1: Test sample as received (BS EN ISO 1182)	11
	Figure A.2: Test sample as received (BS EN ISO 1716)	11



1 Introduction

This classification report defines the classification assigned to 'Clayworks Exterior Finishes' in accordance with the procedures given in BS EN 13501-1: 2018¹.

BRE Global

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH BS EN 13501-1: 2018

Sponsor:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Prepared for:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Manufacturer:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Place of Manufacture:	Cornwall, United Kingdom
Prepared by:	BRE Global, Bucknalls Lane, Garston, Watford, Hertfordshire, WD25 9XX, UK
Notified Body No.:	0832
Product name:	Clayworks Exterior Finishes
Classification report No.:	P124110-1002
Issue number:	One
Date of issue:	16 September 2022

This classification report consists of 11 pages and may only be used or reproduced in its entirety.



2 Details of classified product

2.1 General

The product, 'Clayworks Exterior Finishes', is defined by the test sponsor as a lime-based rendering and plastering mortar in accordance with BS EN 998-1².

2.2 Product description

The product, 'Clayworks Exterior Finishes', is described in section 2.2.2.

2.2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for test and the products supplied to market. The results apply to the samples as received.

2.2.2 Sample details

Unless otherwise stated all measurements are nominal.

Parameter	Details
Test sponsor	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Prepared for	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Manufacturer of sample	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Place of manufacture	Cornwall, United Kingdom
Trade name (as provided by test sponsor)	Clayworks Exterior Finishes
Sample reference	Exterior Finish
Sample description (as provided by test sponsor/manufacturer)	Exterior Lime Render. The test sponsor's product description is shown in Appendix A of this report.



Parameter	Details
Description of sample (as received)	A light sand/buff coloured granular material ground to a fine powder by a representative of BRE Global and a set of light sand/buff coloured cylinders meeting the dimension requirements specified in BS EN ISO 1182 ² . The test samples as received are shown in Appendix A of this report.
Test sponsor's product data	
Generic type of product	Lime Render
Nominal thickness of product (mm)	Various
Nominal density of product (kg/m ³)	1650
Nominal mass per unit area of product (kg/m ²)	Various, dependant on thickness
Colour	Light sand/light buff (determined by BRE Global)
Finish	Exterior
Flame retardant treatment added, or organic content limited during production (yes/no)	No
European product standard, if applicable	BS EN 998-1 ²
Substrate and ventilation conditions	
Generic type of substrate	None
ventilation condition	
Type of air gap	None
Measured sample data, measured by BRE Global, determined by BRE Global at 23 °C ± 2 °C and 50% ± 5% RH (Based on BS EN ISO 1182 test specimens)	
Mean sample height (mm)	49.27 (range 48.16 to 49.87)
Mean sample mass per unit area (kg/m ²)	81.89 (range 79.87 to 83.91)
Mean sample density (kg/m ³)	1662.2 (range 1643.1 to 1693.4)
Test information	
Face to be tested	Not applicable, homogeneous
Orientation aspects	Not applicable
Test sponsor's sampling identification	Note 1
BRE Global sample number	E14386 and E14390
Additional information	None

Note 1: This information was not supplied by the test sponsor.



3 Reports & results in support of this classification

3.1 Reports

Name of Laboratory	Name of test sponsor	Test reports Nos.	Test method/field of application rules
BRE Global	Clayworks Limited	P124110-1000 Issue 1	EN ISO 1182 ³
BRE Global	Clayworks Limited	P124110-1001 Issue 1	EN ISO 1716 ⁴

3.2 Results

Test method & test number	Parameter	No. test runs	Results	
			Continuous parameter - mean (m)	Compliance with parameters Criterion / Compliance status, A1
BS EN ISO 1182 P124110-1000 Tested: 07/09/2022, 08/09/2022 & 09/09/2022 E14386	ΔT	5	0.94 °C	$\Delta T \leq 30$ °C / Compliant
	Δm		4.0 %	$\Delta m \leq 50$ % / Compliant
	t_f		0 s	$t_f = 0$ / Compliant
BS EN ISO 1716 P124110-1001 Tested: 16/09/2022 E14390	Q_{PCS}	3	0.10 MJ/kg	$Q_{PCS} \leq 2.0$ MJ/kg / Compliant



4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with BS EN 13501-1: 2018.

4.2 Classification

The product, 'Clayworks Exterior Finishes', in relation to reaction to fire behaviour is classified:

A1

The additional classification in relation to smoke production is:

-

The additional classification in relation to flaming droplets / particles is:

-

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire Behaviour		Smoke Production				Flaming Droplets	
A1	-	s	-	,	d	-	

i.e., A1

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for:

- i) Lime render.

And the following product and mounting and fixing parameters:

Parameter	Field of application
Colour	Light sand/light buff. As tested, no variation in colour allowed.
Finish	As tested. No variation in finish allowed.
Composition	As tested. No variation in composition allowed.
Facing	None. No variation allowed.
Overall thickness	Valid for all thicknesses
Density	Nominal 1650 (1662.2 kg/m ³ ± 31.2 kg/m ³ measured by BRE). No variation in density allowed.



5 Limitations

This classification document does not represent type approval or certification of the product.

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures, or stages (e.g., no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence, the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

The information in Section 2.2.2 of this report, other than that indicated otherwise, was supplied by the test sponsor and was not independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

Because of the nature of reaction to fire testing and the consequent difficulty in quantifying the uncertainty of measurement of reaction to fire, it is not possible to provide a stated degree of accuracy of the results.

6 References

1. BS EN 13501-1: 2018. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests. BSI, London. 2018.
2. BS EN 998-1: 2016. Specification for mortar for masonry. Part 1: Rendering and plastering mortar. BSI, London. 2016.
3. BS EN ISO 1182: 2020. Reaction to fire tests for products - Non-combustibility test. BSI, London. 2020.
4. BS EN ISO 1716: 2018. Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value). BSI, London. 2018.



Appendix A Product description

Table A.1: Test sponsor's product description

Test sponsor Clayworks Ltd., Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Cornwall TR127AZ	
Parameter	Details
Trade name of product tested	Clayworks Exterior Finishes
General description of product tested	Exterior Lime Render
Name and address of manufacturer of product	Clayworks Ltd, Unit 5 Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall TR12 7AZ
Place of manufacture	Cornwall, UK
Product reference/number	Exterior Finish
Overall thickness	8 mm
Overall density	1650 kg/m ³
Overall mass per unit area	15 kg/m ²
Generic type of product	Lime Render
Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details	None
Harmonised EN product standard , and AVCP System No. if applicable	Note 1
Product breakdown	
Core material	- Generic type Clay Plaster
	- Product reference/name Rustic
	- Manufacturer Clayworks Ltd.
	- Batch No. Note 1
	- Thickness 8 mm
	- Mass per unit area/ density 15 kg/m ²
	- Colour reference Note 1
	- Trade name flame retardant Note 1
	- Generic type flame retardant Note 1
	- Amount flame retardant Note 1
Sampling Identification Reference (if applicable)	Note 1
Additional information	Note 1

Note 1: This information was not supplied by the test sponsor.

Clayworks



Figure A.1: Test sample as received (BS EN ISO 1182)

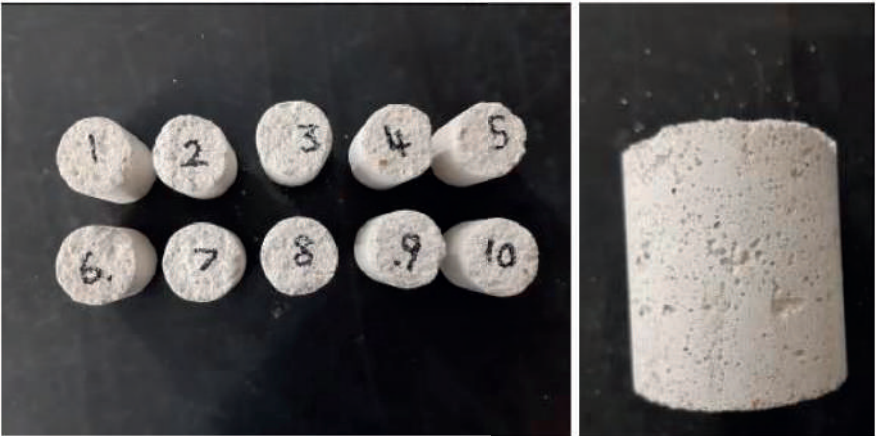
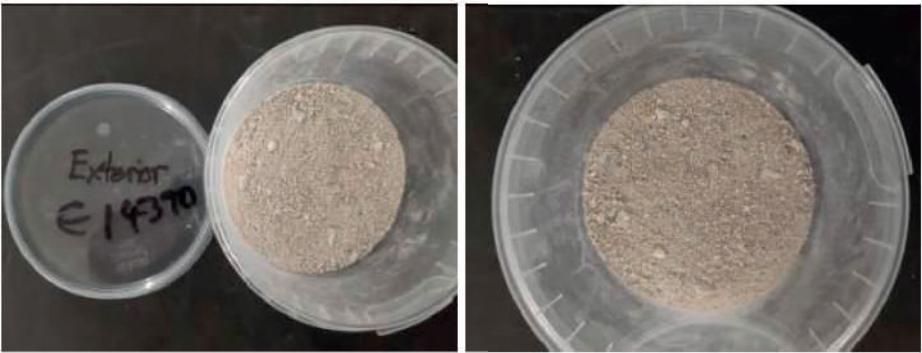


Figure A.2: Test sample as received (BS EN ISO 1716)





BRE Global Classification Report

Classification of reaction to fire performance in accordance with
BS EN 13501-1: 2018 on Clayworks Tadelakt

Prepared for: Clayworks Limited
Date: 07 November 2022
Report Number: P123078-1002 Issue 1

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Prepared by

Name C A Rock

Position Principal Consultant

Signature 

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 07 November 2022

Signature 

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[Table of Contents](#)

1	Introduction	4
2	Details of classified product	5
2.1	General	5
2.2	Product description	5
2.2.1	Traceability	5
2.2.2	Sample details	5
3	Reports & results in support of this classification	7
3.1	Reports	7
3.2	Results	7
4	Classification and field of application	8
4.1	Reference of classification	8
4.2	Classification	8
4.3	Field of application	8
5	Limitations	9
6	References	9
Appendix A	Product description	10
	Table A.1: Test sponsor's product description	10
	Figure A.1: Test sample as received (BS EN ISO 1182)	11
	Figure A.2: Test sample as received (BS EN ISO 1716)	11



1 Introduction

This classification report defines the classification assigned to 'Clayworks Tadelakt' in accordance with the procedures given in BS EN 13501-1: 2018¹.

BRE Global

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH BS EN 13501-1: 2018

Sponsor:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Prepared for:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Manufacturer:	Clayworks Limited, Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall, TR12 7AZ, United Kingdom
Place of Manufacture:	Cornwall, United Kingdom
Prepared by:	BRE Global, Bucknalls Lane, Garston, Watford, Hertfordshire, WD25 9XX, UK
Notified Body No.:	0832
Product name:	Clayworks Tadelakt
Classification report No.:	P123078-1002
Issue number:	One
Date of issue:	16 September 2022

This classification report consists of 11 pages and may only be used or reproduced in its entirety.



2 Details of classified product

2.1 General

The product, 'Clayworks Tadelakt', is defined by the test sponsor as a lime-based rendering and plastering mortar in accordance with BS EN 998-1².

2.2 Product description

The product, 'Clayworks Tadelakt', is described in section 2.2.2.

2.2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for test and the products supplied to market. The results apply to the samples as received.

2.2.2 Sample details

Unless otherwise stated all measurements are nominal.

Parameter	Details
Test sponsor	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Prepared for	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Manufacturer of sample	Clayworks Limited Unit 5 Higher Bochym Rural Workshops Cury Cross Lanes Helston Cornwall TR12 7AZ United Kingdom
Place of manufacture	Cornwall, UK
Trade name	Clayworks Tadelakt
Sample reference	Clayworks Tadelakt



Parameter	Details
Sample description (as provided by test sponsor/manufacturer)	Interior Water Resistant Plaster. The test sponsor's product description is shown in Appendix A of this report.
Description of sample (as received)	A white granular material ground to a fine powder by a representative of BRE Global and a set of white cylinders meeting the dimension requirements specified in BS EN ISO 1182 ² . The test samples as received are shown in Appendix A of this report.
Test sponsor's product data	
Generic type of product	Lime render
Nominal thickness of product (mm)	Various
Nominal density of product (kg/m ³)	1600
Nominal mass per unit area of product (kg/m ²)	Various, dependant on thickness
Colour	White (determined by BRE Global)
Finish	Smooth
Flame retardant treatment added, or organic content limited during production (yes/no)	No
European product standard, if applicable	BS EN 998-1 ²
Substrate and ventilation conditions	
Generic type of substrate	None
ventilation condition	
Type of air gap	None
Measured sample data, measured by BRE Global, determined by BRE Global at 23 °C ± 2 °C and 50% ± 5% RH (Based on BS EN ISO 1182 test specimens)	
Mean sample height (mm)	48.73 (range 48.05 to 49.57)
Mean sample mass per unit area (kg/m ²)	81.47 (range 80.21 to 82.41)
Mean sample density (kg/m ³)	1671.9 (range 1649.1 to 1696.4)
Test information	
Face to be tested	Not applicable, homogeneous
Orientation aspects	Not applicable
Test sponsor's sampling identification	Note 1
BRE Global sample number	E14385 and E14389
Additional information	None

Note 1: This information was not supplied by the test sponsor.



3 Reports & results in support of this classification

3.1 Reports

Name of Laboratory	Name of test sponsor	Test reports Nos.	Test method/field of application rules
BRE Global	Clayworks Limited	P123078-1000 Issue 1	EN ISO 1182 ³
BRE Global	Clayworks Limited	P123078-1001 Issue 1	EN ISO 1716 ⁴

3.2 Results

Test method & test number	Parameter	No. test runs	Results	
			Continuous parameter - mean (m)	Compliance with parameters Criterion / Compliance status, A1
BS EN ISO 1182 P123078-1000 Tested: 02/09/2022, 05/09/2022 & 06/09/2022 E14385	ΔT	5	0.38 °C	$\Delta T \leq 30$ °C / Compliant
	Δm		8.7 %	$\Delta m \leq 50$ % / Compliant
	t_f		0 s	$t_f = 0$ / Compliant
BS EN ISO 1716 P123078-1001 Tested: 02/09/2022 & 16/09/2022 E14389	Q_{PCS}	3	0.02 MJ/kg	$Q_{PCS} \leq 2.0$ MJ/kg / Compliant



4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with BS EN 13501-1: 2018.

4.2 Classification

The product, 'Clayworks Tadelakt', in relation to reaction to fire behaviour is classified:

A1

The additional classification in relation to smoke production is:

-

The additional classification in relation to flaming droplets / particles is:

-

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire Behaviour		Smoke Production			Flaming Droplets	
A1	-	s	-	,	d	-

i.e., A1

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for:

- i) Lime-based render

And the following product and mounting and fixing parameters:

Parameter	Field of application
Colour	White. As tested, no variation in colour allowed.
Finish	As tested. No variation in finish allowed.
Composition	As tested. No variation in composition allowed.
Facing	None. No variation allowed.
Overall thickness	Valid for all thicknesses
Density	Nominal 1600 (1671.9 kg/m ³ ± 24.5 kg/m ³ measured by BRE). No variation in density allowed.



5 Limitations

This classification document does not represent type approval or certification of the product.

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures, or stages (e.g., no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence, the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

The information in Section 2.2.2 of this report, other than that indicated otherwise, was supplied by the test sponsor and was not independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

Because of the nature of reaction to fire testing and the consequent difficulty in quantifying the uncertainty of measurement of reaction to fire, it is not possible to provide a stated degree of accuracy of the results.

6 References

1. BS EN 13501-1: 2018. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests. BSI, London. 2018.
2. BS EN 998-1: 2016. Specification for mortar for masonry. Part 1: Rendering and plastering mortar. BSI, London. 2016.
3. BS EN ISO 1182: 2020. Reaction to fire tests for products - Non-combustibility test. BSI, London. 2020.
4. BS EN ISO 1716: 2018. Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value). BSI, London. 2018.



Appendix A Product description

Table A.1: Test sponsor's product description

Test sponsor Clayworks Ltd., Unit 5, Higher Bochym Rural Workshops, Cury Cross Lanes, Cornwall TR127AZ	
Parameter	Details
Trade name of product tested	Clayworks Tadelakt
General description of product tested	Interior Water Resistant Plaster
Name and address of manufacturer of product	Clayworks Ltd, Unit 5 Higher Bochym Rural Workshops, Cury Cross Lanes, Helston, Cornwall TR12 7AZ
Place of manufacture	Cornwall, UK
Product reference/number	Clayworks Tadelakt
Overall thickness	2 mm
Overall density	1600 kg/m ³
Overall mass per unit area	3 kg/m ²
Generic type of product	Lime render
Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details	None
Harmonised EN product standard , and AVCP System No. if applicable	Note 1
Product breakdown	
Core material	- Generic type Interior Water Resistant Plaster
	- Product reference/name Clayworks Tadelakt
	- Manufacturer Clayworks Ltd
	- Batch No. Note 1
	- Thickness 2 mm
	- Mass per unit area/ density 3 kg/m ²
	- Colour reference Note 1
	- Trade name flame retardant Note 1
	- Generic type flame retardant Note 1
	- Amount flame retardant Note 1
Sampling Identification Reference (if applicable)	Note 1
Additional information	Note 1

Note 1: This information was not supplied by the test sponsor.

bre

Figure A.1: Test sample as received (BS EN ISO 1182)



Figure A.2: Test sample as received (BS EN ISO 1716)

