

TEST REPORT

No. : GZIN151001492CCM

Date : Nov. 18, 2015

Page: 1 of 8

CLIENT NAME: PHOMI MCM CO., LTD.

ADDRESS: 112 ZHONGSHENG ROAD, PANYU DISTRICT, GUANGZHOU, CHINA

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : MCM FLEX-CLAY, Unfired Flexi Clay Cladding & Flooring

SGS Ref. No. : GZIN151001492CCM

Test Performed : Selected test(s) as requested by applicant

Date of Receipt : Oct. 12, 2015

Test Period : Oct. 19, 2015 to Oct. 28, 2015

Test result(s) : Please refer to the following page(s)

*****To be continued*****

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co.,Ltd
Guangzhou Branch



Chandler Wu
Technical Engineer

** Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. The report should not be reproduced except in full without written approval from the Company



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011635

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f(86-20) 82075080 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f(86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

TEST REPORT

No. : GZIN151001492CCM

Date : Nov. 18, 2015

Page: 2 of 8

Test Result Summary

Test(s) Requested	Result(s)
ASTM E84-15	Class A
Summary:	
1. For further details, please refer to the following page(s).	

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011636

SGS Standards Technical Services Co., Ltd.
通标标准技术服务有限公司

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f (86-20) 82075080 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f (86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

TESTS AND RESULTS

Sample information:

Thickness: Approximately 4mm

Exposure Face: Mesh face

Test Conducted:

This test was conducted in accordance with ASTM E84-15 Standard Test Method for Surface Burning Characteristics of Building Materials

Introduction:

The method, designated as ASTM E84-15, "Standard Method of Test for Surface Burning Characteristics of Building Materials", is designed to determine the relative surface burning characteristics of materials under specific test conditions. Results are expressed in terms of flame spread index (FSI) and smoke developed index (SDI).

The purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed index are reported. However, there is not necessarily a relationship between these two measurements.

Sample Preparation:

Prior to testing, the specimen was conditioned to constant weight at a temperature of $73 \pm 5^\circ\text{F}$ ($23 \pm 3^\circ\text{C}$) and a relative humidity of $50 \pm 5\%$.

The test specimen consisted of a total of 7 sections of material. The sections were butted together during testing to form the requisite specimen length.

The specimen was supported during testing by 1/6" round metal rods placed at nominal 18 inch intervals across the width of the test chamber.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011637

Test Procedure:

The tunnel is preheated to 150°F, as measured by the floor-embedded thermocouple located 23.25 feet downstream of the burner ports, and allowed to cool to 105°F, as measured by the floor-embedded thermocouple located 13 feet from the burners. At this time the tunnel lid is raised and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling 24 feet long, 12 inches above the floor. The lid is then lowered into place.

Upon ignition of the gas burners, the flame spread distance is observed and recorded every 15 seconds. Flame spread distance versus time is plotted ignoring any flame front recessions. If the area under the curve (A) is less than or equal to 97.5 min-ft, FSI = 0.515·A; if greater, FSI = 4900/(195-A). Smoke developed is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, arbitrarily established as 0 and 100, respectively.

Test Results:

Sample	Flame-Spread Index (FSI)	Smoke-developed Index (SDI)
MCM FLEX-CLAY, UNFIRED FLEXI CLAY CLADDING&FLOORING	15	25

Observations of Burning Characteristics:

Flame Front: 3.5 feet maximum.

Time To Maximum Spread: 150 seconds.

Test Duration: 10 minutes.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011638

SGS Standards Technical Services Co., Ltd.
6 Guangzhou Science City Kezhu Road

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f (86-20) 82075080 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f (86-20) 82075080 e sgs.china@sgs.com

TEST REPORT

No. : GZIN151001492CCM

Date : Nov. 18, 2015

Page: 5 of 8

Rating:

The National Fire Protection Association Life Safety Code 101, "Interior Wall and Ceiling Finish Classification", has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Burning Materials.

The classifications are as follows:

	<u>Flame-Spread Index (FSI)</u>	<u>Smoke-developed Index(SDI)</u>
Class A	0 - 25	0 - 450
Class B	26 - 75	0 - 450
Class C	76 - 200	0 - 450

Conclusion:

Refer to the National Fire Protection Association Life Safety Code 101, "Interior Wall and Ceiling Finish Classification", the submitted sample met the requirement of Class A.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011639

SGS Standards Technical Services Co., Ltd.
Guangzhou Branch

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f(86-20) 82075080 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f(86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com

Graphical Results:

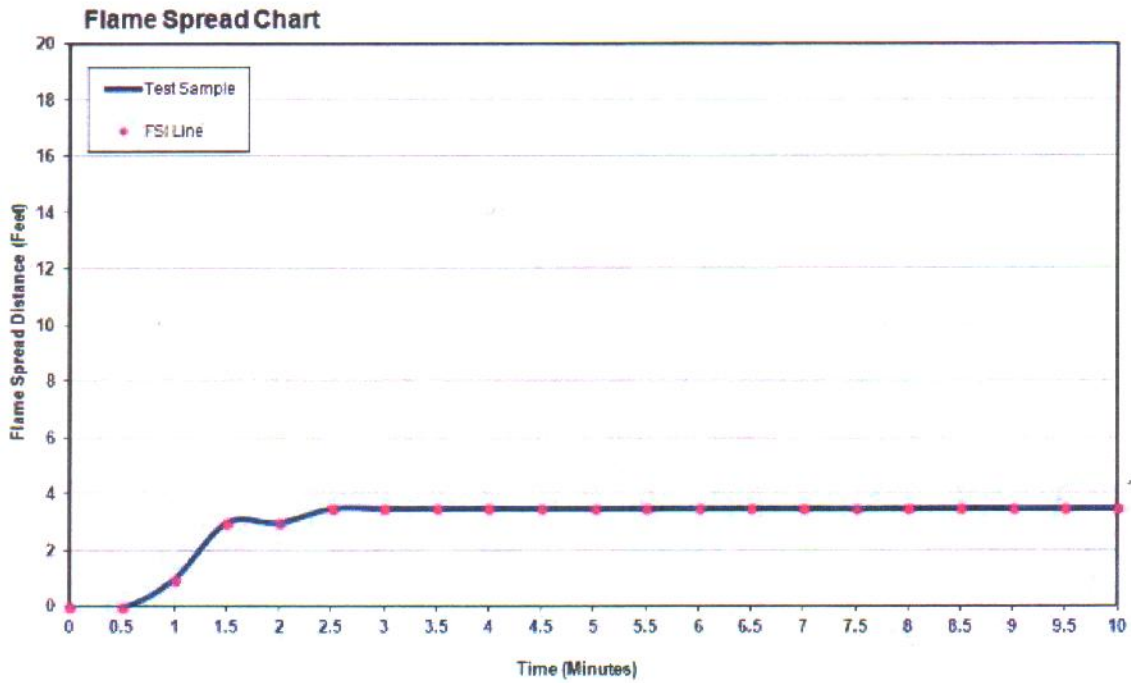


Figure 1. Flame Spread Chart



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011640

SGS Standards Technical Services Co., Ltd.
Guangzhou Branch

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f(86-20) 82075080 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f(86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com

Smoke Developed Chart

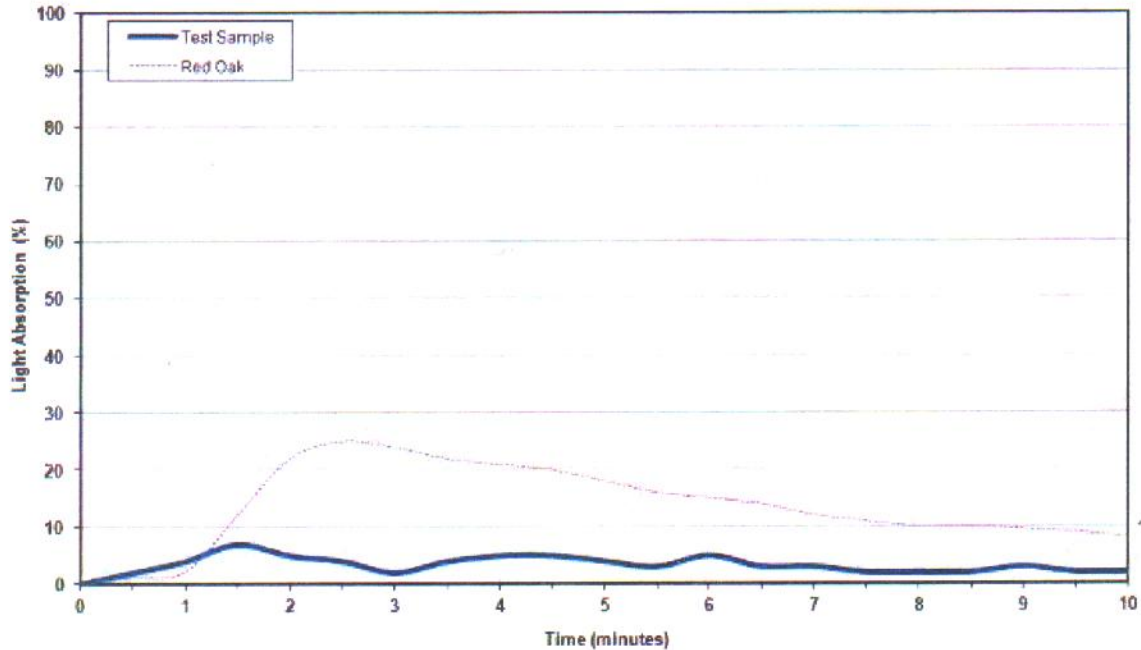


Figure 2. Smoke Developed Chart

Note: The above test was carried out by a SGS internal laboratory.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011641

SGS Standards Technical Services Co., Ltd.
Guangzhou Branch

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f (86-20) 82075080 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f (86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

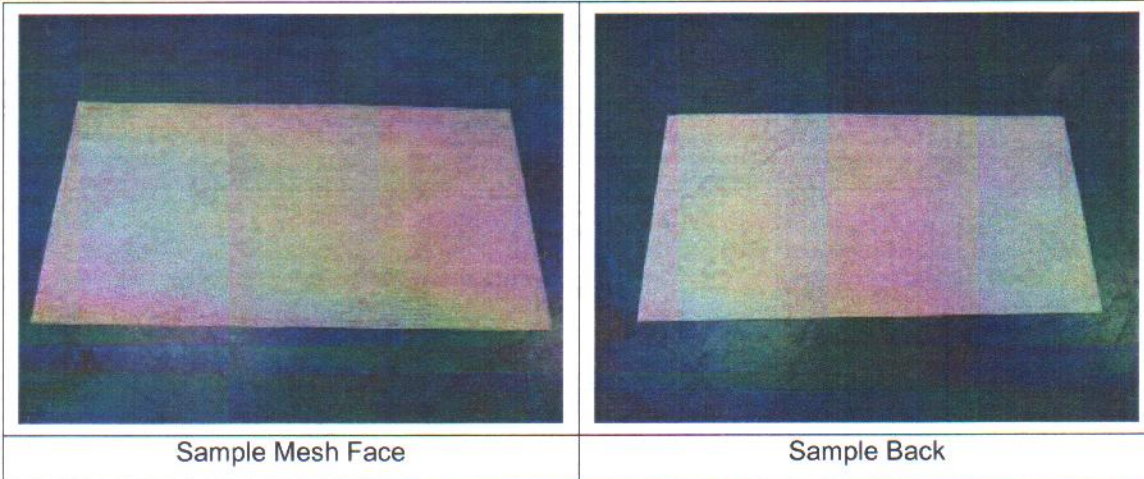
TEST REPORT

No. : GZIN151001492CCM

Date : Nov. 18, 2015

Page: 8 of 8

Photo:



*****End of report*****

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

GZCCM 011642

SGS-Standard Technical Services Co., Ltd.
Guangzhou Branch, SGS-Standard Technical Services Co., Ltd. (Incorporated in Hong Kong)
Guangzhou Branch, SGS-Standard Technical Services Co., Ltd. (Incorporated in Hong Kong)

198 Kezhu Road, Sciencetech Park, Economic & Technical Development District, Guangzhou, China. 510663 t(86-20) 82155555 f (86-20) 82075080 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t(86-20) 82155555 f (86-20) 82075080 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)