

ORTECH INDUSTRIES INC

13376 COMBER WAY SURREY BC V3W 5V9

Sample Description: LED DOWNLIGHT

Model Name: SLIM4FR-5CCT, SLIM6FR-5CCT, SLIM4FL+FR-5CCT, SLIM6FL+FR-5CCT

The above data and information was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion.

SGS Ref No.: GZES2311020114LM

Sample Receiving Date: Jul.12, 2023

Test Performing Date: Jul.12, 2023 to Sep.22, 2023

Test Requested:

The fire resistance performance of loadbearing timber floor assembly protected by a fiber reinforced calcium silicate board ceiling, incorporating four LED downlights, in accordance with UL 263:2022 /ASTM E119:2022 /CAN/ULC-S101-07.

Test Results: -- See attached sheet --

Signed for and on behalf of
Shunde Branch
SGS-CSTC Co., Ltd.



Scan to see the report



Irvette Zhang
Approved signatory



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300

t (86-757) 22805888

www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会澜和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com

Contents

Introduction	3
Summary	3
Test Sample	3
Test Procedure.....	12
Test Results.....	12
Conditions of Acceptance and Test Results	18
Conclusion.....	18
Limitation	18
Photo Appendix.....	19



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CS Standards Technical Services (Shunde Branch) Ltd.
Shunde Branch of Standards Technical Services

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会瀚和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgsgroup.com.cn
t (86-757) 22805888 sgs.china@sgs.com

1. Introduction

Determine the fire resistance performance of a timber floor assembly protected by a fiber reinforced calcium silicate board ceiling, incorporating four LED downlights, when tested in accordance with UL 263:2022, Clause 10, Floor and Roof Assemblies Test./Floors and Roofs of ASTM E119:2022. /CAN/ULC-S101-07 Section 10. Floor and Roof Assemblies.

The specified side (under side) of floor sample was exposed to elevated temperatures as dictated in standard time-temperature curve for a period of 120 minutes.

The test was conducted on Sep.16th, 2023.

2. Summary

The performance of the sample was judged against the criteria for integrity and insulation as specified in Standards for horizontal construction, and the results obtained were as follows:

Integrity	Insulation
120 minutes	120 minutes

The test was terminated after a period of 121 minutes as requested by the client.

3. Test Sample

Use a 2-hour fire rated ceiling assembly constructed refer to the construction specifications of UL Design No. L505. The fire rated ceiling assembly consisting of the following:

The timber floor had overall nominal dimensions of 4300 mm long by 4500 mm wide and comprised softwood timber joists spaced 406 mm.

The upper surface of the floor assembly one layer nominally 18 mm thick Egger chipboard flooring.

The underside of the floor assembly was protected by two layers 15mm thick ceiling boards with a 15.9mm high resilient channels installed between the two layers ceiling boards.

The floor supported an evenly distributed load of 100kg/m².

Please refer to the component list on the next page.

Note: All materials used in above ceiling assembly are purchased in China.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CS Standards Technical Services (Shunde) Ltd.
Shunde Branch of SGS (China) Technical Services

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会瀚和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgsgroup.com.cn
t (86-757) 22805888 sgs.china@sgs.com

The ceiling incorporated four downlights referenced as follows:

Model	Description
SLIM4FR-5CCT	Size: 127 mm Ø by 51 mm High, fixed downlight, 108 mm cut-out
SLIM6FR-5CCT	Size: 175 mm Ø by 51 mm High, fixed downlight, 158 mm cut-out
SLIM4FL+FR-5CCT	Size: 125 mm Ø by 52 mm High, fixed downlight, 108 mm cut-out
SLIM6FL+FR-5CCT	Size: 175 mm Ø by 51 mm High, fixed downlight, 140 mm cut-out

Schedule of Components

Timber floor assembly

1. Floor boards

- Manufacturer : Egger
- Materials : Egger Chipboard, E1
- Thickness : 1 layer, 18 mm thick
- Density : About 700 kg/m³
- Fixing method : All board screw fixed to all joists using drywall steel screws 55 mm long by 3.9 mm diameter screws, at 200 mm centres along joints and 150 mm centres align perimeter of floor.

2. Floor Joists

- Materials : Softwood Timber Joists
- Over section size : 50 mm thick by 254 mm deep
- Density : About 600 kg/m³
- Joint centres : 406 mm



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

3. Resilient Channels

Materials : Glav steel

Spacing : 24 in.

Fixing method : The resilient channels installed between the two ceiling boards. Channels overlapped 1/2 in.(12.7mm) at splices and secured to each joist with screws. Min end clearance of channels to wall to be 3/4 in.(19.0mm).

4. Ceiling boards

Materials : Fiber reinforced calcium silicate board

Thickness : 2 layers, each 15mm thick

Density : About 1010 kg/m³

Fixing method : First layer installed with long dimension perpendicular to joists, and end joints of boards located at the joists. Nailed to joists with uncoated nails spaced 7 in. (177.8mm) OC. Second layer installed with long dimension perpendicular to the resilient channels and center line of boards located under a joist and so placed that the edge joint of this layer is not in alignment with the end joint of the first layer. Secured to resilient channels with 1 in. (25.4mm) long gypsum board screws 12 in.(304.8mm) OC.

5. Specimen “B”

Model : SLIM4FR-5CCT

Overall dimensions and construction : See Figure 2-2

Hole size in ceiling boards : 108 mm diameter

6. Specimen “C”

Model : SLIM6FR-5CCT

Overall dimensions and construction : See Figure 2-3

Hole size in ceiling boards : 158 mm diameter



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

7. Specimen "D"

Model : SLIM4FL+FR-5CCT
Overall dimensions and construction : See Figure 2-4
Hole size in ceiling boards : 108 mm diameter

8. Specimen "E"

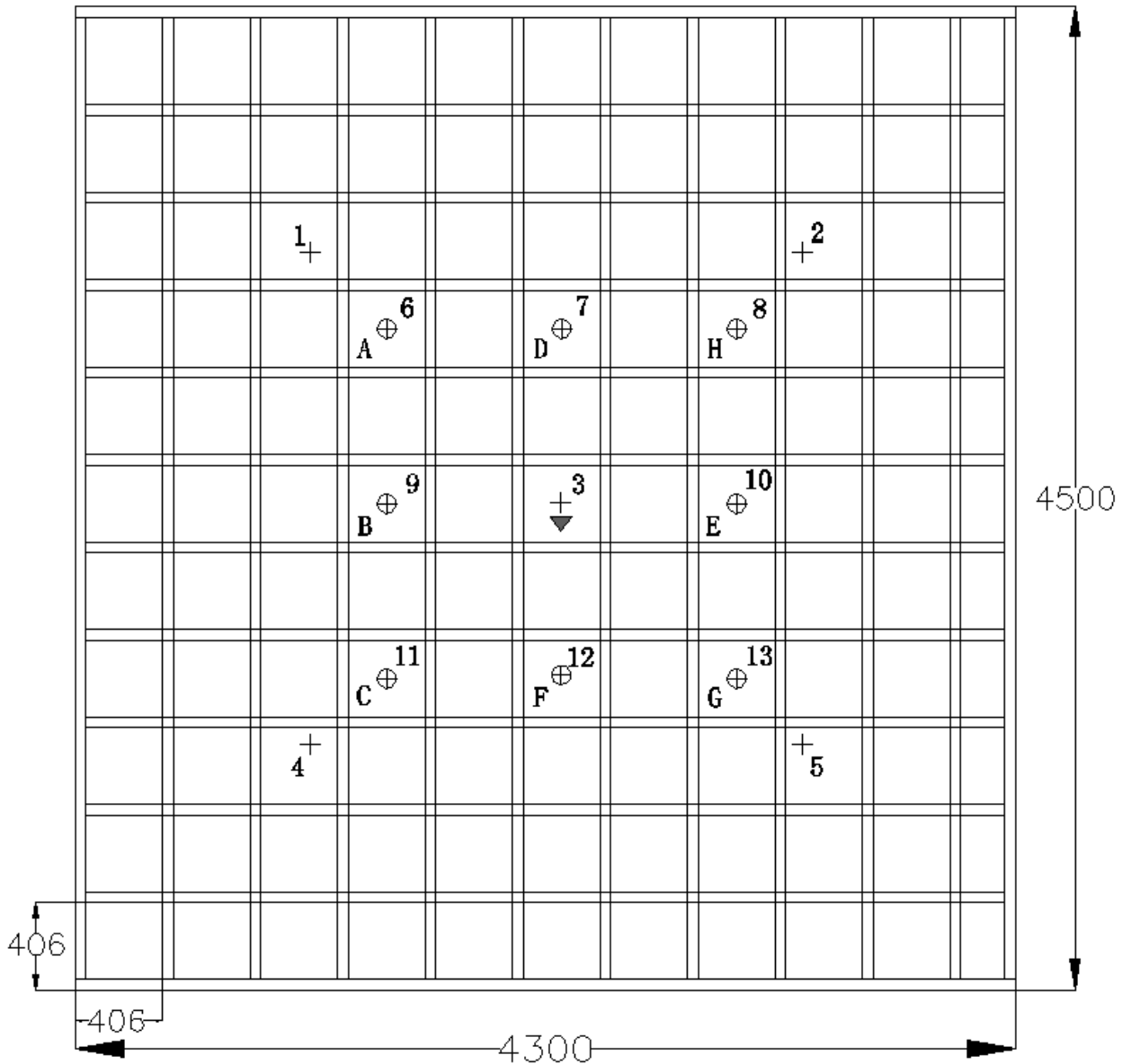
Model : SLIM6FL+FR-5CCT
Overall dimensions and construction : See Figure 2-5
Hole size in ceiling boards : 140 mm diameter

The tested sample was supported on the horizontal furnace with an opening of the 4000 mm by 4200 mm. The all around of the furnace wall was covered by ceramic fiber cotton. The tested sample was asymmetrical. At the request of client, the sample was mounted such that underside (Fiber reinforced calcium silicate board ceiling) towards to the heating conditions of the test.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



- + - Unposed face thermocouple position
- ⊕ - Downlight position
- ▼ - Deflection measurement points

Figure 1 - General Plan of Test Sample from Unexposed Face and Thermocouple Positions (Unit: mm)



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

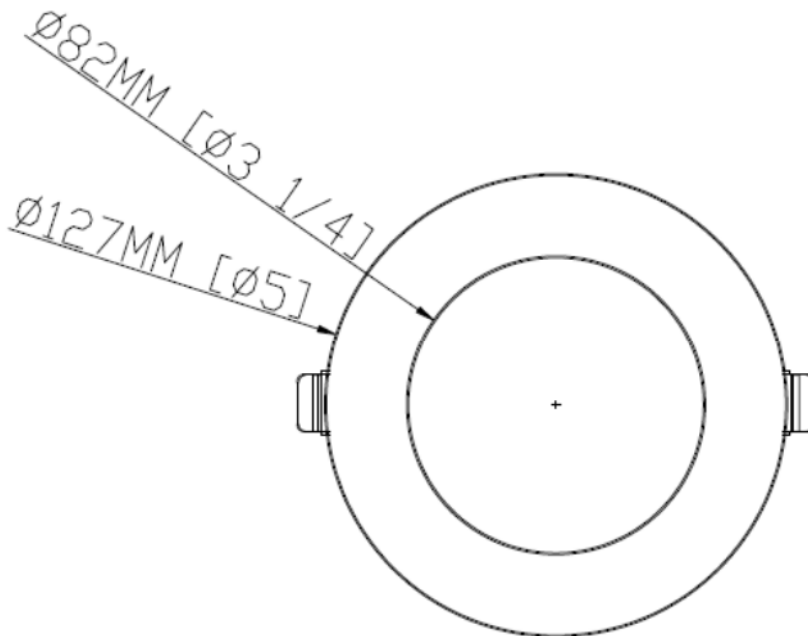
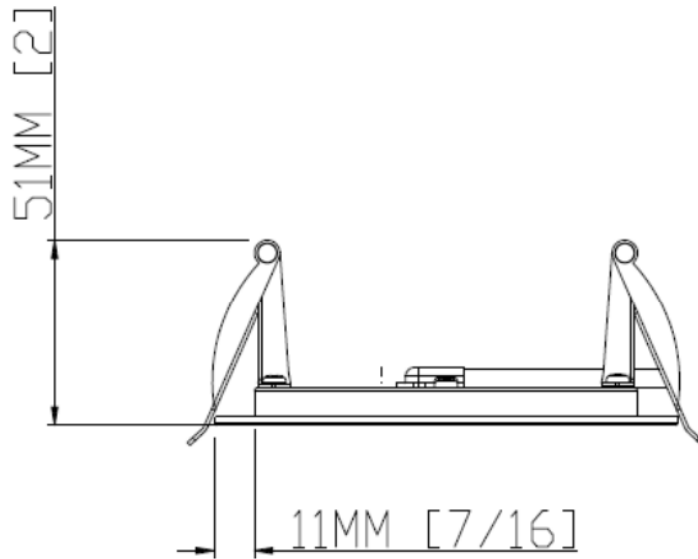


Figure 2-2 - Details of Specimens 'B'



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

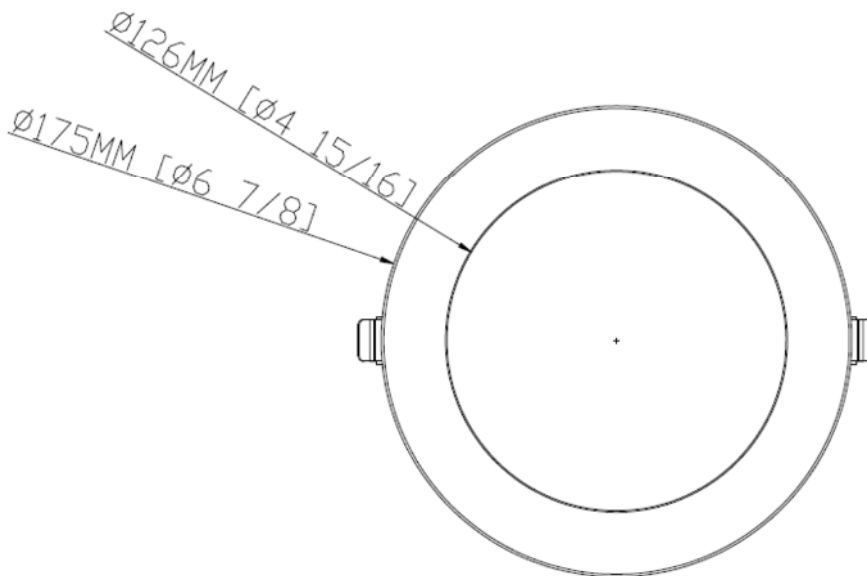
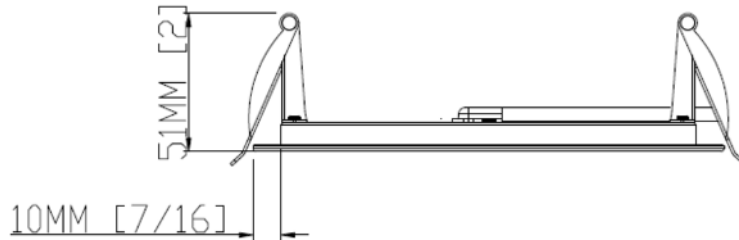


Figure 2-3 - Details of Specimens 'C'



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

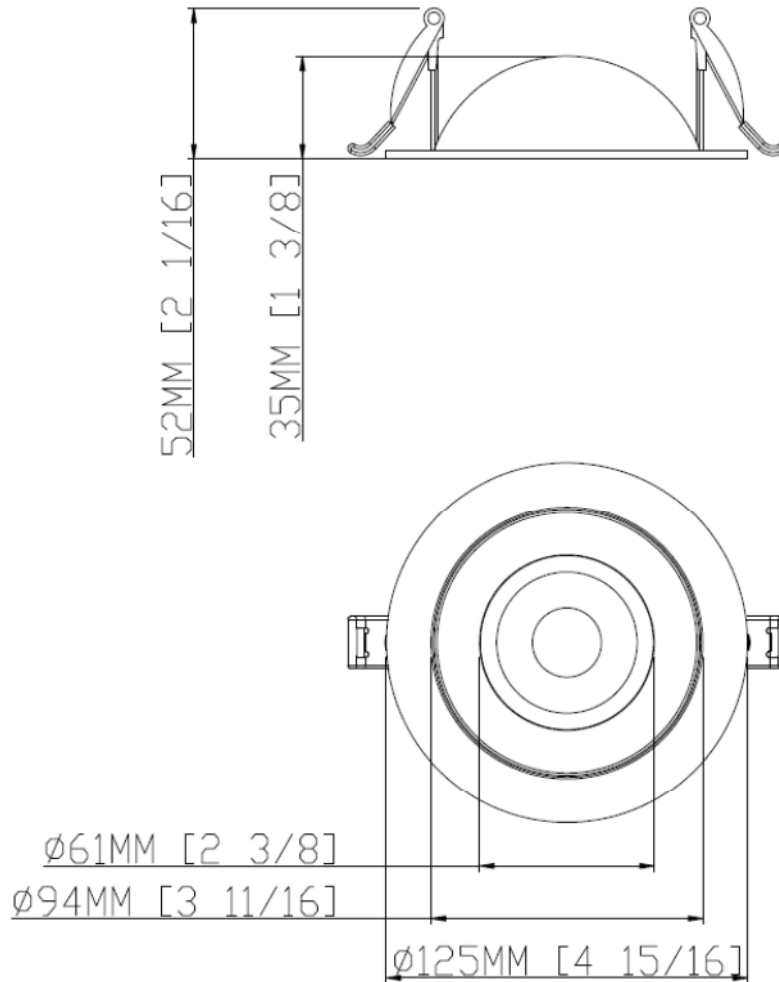


Figure 2-4 - Details of Specimens 'D'



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

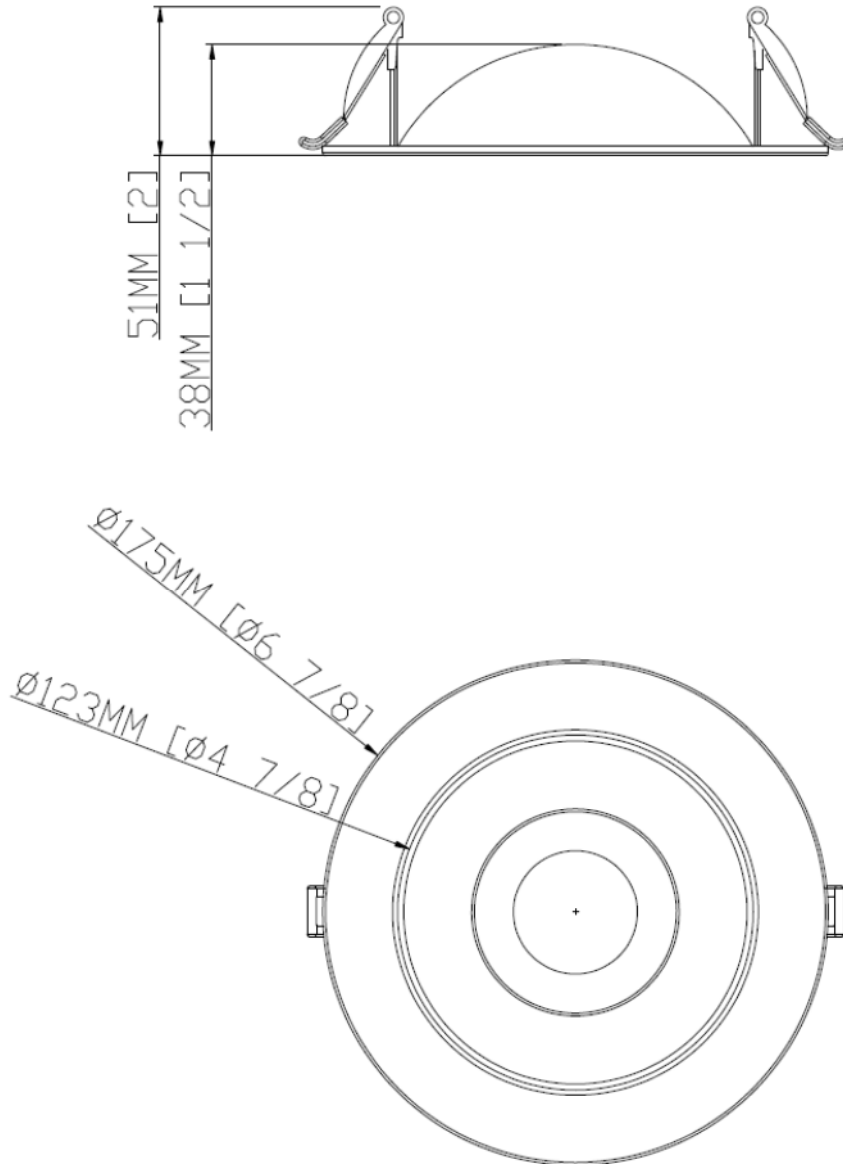


Figure 2-5 - Details of Specimens 'E'



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

4. Test Procedure

The test was conducted in accordance with the procedure specified in UL 263:2022, Clause 10, Floor and Roof Assemblies Test /Floors and Roofs of ASTM E119:2022 /CAN/ULC-S101-07 Section 10. Floor and Roof Assemblies.

The ambient air temperature in the vicinity of the test construction was 29.0 °C at the start of the test with variation of +4.9 °C during the test.

The furnace temperature was measured by means of nine thermocouples distributed evenly in the furnace, with their measuring junctions 305mm away from the exposed surface of the specimen. The furnace temperature was controlled so that the mean of the nine thermocouple readings followed as closely as possible standard time- temperature curve. The furnace temperatures read at intervals not exceeding 5 min during the first 2 h.

Thirteen thermocouples were provided to monitor the unexposed surface of the test specimen.

5. Test Results

The following data were recorded during the test:

- a) The actual mean furnace temperature/time curve as well as the standard furnace temperature/ time curve, which were shown in Figure 3. The standard temperature and the actual mean temperature within the furnace were shown in Table 1.
- b) Individual temperatures recorded on the unexposed surface of the specimen were shown in Table 2.
- c) Deflections have been measured and recorded was shown in Table 3.
- d) Observations made during the test was given in Table 3.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

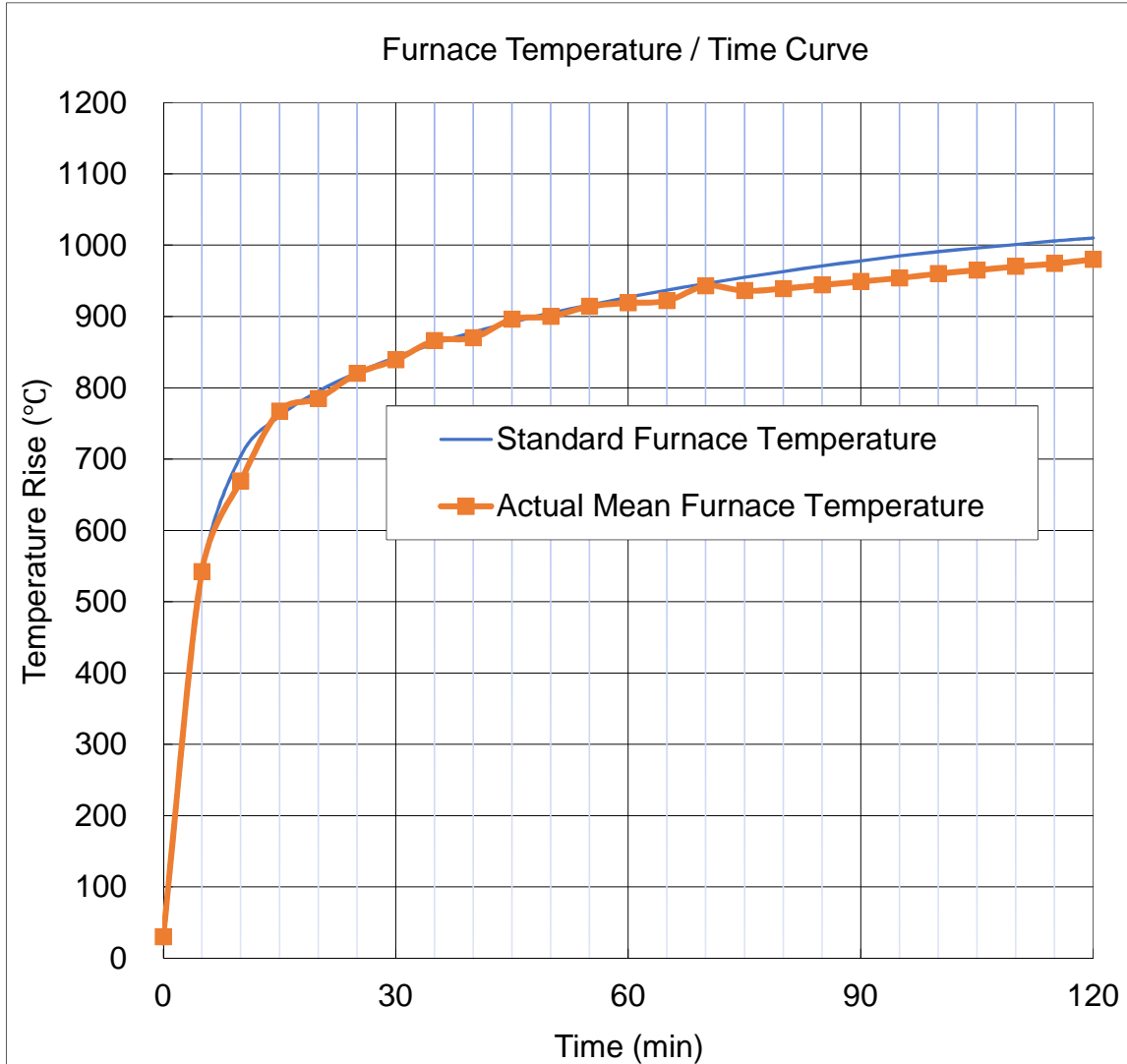


Figure 3 - Standard and actual Mean Furnace Temperature/Time Curve



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Table 1 The standard temperature and the actual mean temperature within the furnace

Time (min)	Standard Temperature (°C)	Actual Mean Temperature (°C)
0	20	30
5	538	542
10	704	669
15	760	767
20	795	785
25	821	820
30	843	839
35	862	866
40	878	870
45	892	896
50	905	900
55	916	914
60	927	919
65	937	922
70	946	943
75	955	936
80	963	939
85	971	944
90	978	949
95	985	954
100	991	960
105	996	965
110	1001	970
115	1006	974
120	1010	980

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2/F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300

t (86-757) 22805888

www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号楼首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



Table 2 Individual Temperatures Recorded on the Unexposed Surface of the Specimen

Time (min)	Temperature (°C)													Avg. Tem.
	1#	2#	3#	4#	5#	6#	7#	8#	9#	10#	11#	12#	13#	
0	30.5	31.0	30.2	29.4	29.9	30.5	30.1	30.8	31.2	30.9	31.1	30.8	30.5	30.5
5	30.6	31.0	30.2	29.4	29.9	30.7	30.1	30.8	31.4	31.1	31.3	30.8	30.5	30.6
10	30.6	31.0	30.2	29.4	29.9	33.9	33.5	31.9	34.2	36.0	36.8	34.0	33.1	32.7
15	31.4	31.8	31.0	29.9	35.3	43.2	46.3	39.3	44.3	47.4	50.4	47.3	45.3	40.2
20	33.3	33.7	32.8	31.1	45.3	53.4	57.9	48.1	55.7	60.0	65.7	59.8	58.3	48.9
25	35.5	36.0	34.9	32.7	53.5	63.0	68.3	56.1	67.7	76.2	84.1	71.7	71.3	57.8
30	38.4	38.1	37.0	34.6	60.5	72.6	78.1	62.8	80.3	91.7	94.8	82.8	83.3	65.8
35	41.3	40.0	39.5	37.2	66.0	81.6	84.8	67.7	88.8	98.4	98.1	89.2	90.3	71.0
40	44.2	42.3	43.7	41.5	70.6	89.0	88.7	72.1	92.8	101.3	100.3	91.6	93.4	74.7
45	48.0	45.8	49.5	46.8	74.6	93.9	90.5	76.7	94.3	104.8	103.9	92.4	94.8	78.2
50	52.5	50.3	56.3	52.9	77.9	96.6	91.6	80.7	95.3	109.4	108.6	92.5	95.7	81.6
55	57.6	55.0	63.7	59.6	80.6	97.7	92.7	82.5	96.2	114.9	114.1	92.6	95.8	84.8
60	63.7	60.6	71.4	66.6	82.8	99.3	93.6	83.5	97.6	121.1	120.2	92.8	96.1	88.4
65	70.0	67.2	78.3	74.3	84.1	100.8	94.3	85.7	99.0	127.9	126.5	93.3	96.3	92.1
70	75.6	75.0	84.1	82.4	85.1	102.2	94.9	88.4	101.0	134.8	133.1	93.9	96.4	95.9
75	81.4	84.0	88.0	88.4	85.7	103.5	95.8	91.9	102.7	141.2	139.9	94.3	96.6	99.5
80	88.0	88.7	90.2	91.3	86.1	104.5	96.6	94.7	104.3	146.4	146.8	94.5	96.5	102.2
85	92.8	90.0	91.2	92.2	86.3	105.3	97.4	97.3	106.3	150.7	153.9	94.7	96.3	104.2
90	94.4	90.2	91.7	92.8	86.7	106.0	98.2	99.8	108.6	154.6	161.4	95.0	96.2	105.8
95	94.5	90.1	92.0	93.1	87.1	106.8	99.2	102.9	110.9	158.6	169.4	95.4	96.3	107.4
100	94.4	90.2	92.4	93.3	87.7	107.7	100.3	105.8	113.5	162.4	177.5	96.1	96.6	109.1
105	94.3	90.4	92.7	93.5	88.3	108.8	101.5	109.3	116.6	166.5	185.6	96.8	96.9	110.9
110	94.3	90.7	93.0	93.5	88.9	110.1	102.8	112.5	119.7	170.7	193.5	97.5	97.3	112.7
115	94.4	91.1	93.2	93.5	89.3	111.5	104.3	115.2	123.1	174.8	200.9	98.4	97.8	114.4
120	94.3	91.3	93.3	93.3	89.6	112.8	105.6	118.1	126.4	178.9	207.8	99.0	98.1	116.0

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300

t (86-757) 22805888

www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



Table 3 Sample Deflection (At the centre of the sample)

Time (mins)	Deflection(mm)
0	0.0
5	0.9
10	1.7
15	2.6
20	2.8
25	3.9
30	4.4
35	4.6
40	6.4
45	8.0
50	8.3
55	8.3
60	8.9
65	9.3
70	9.1
75	8.9
80	9.4
85	9.1
90	9.2
95	9.0
100	9.6
105	9.8
110	9.5
115	9.8
120	10.2



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgsgroup.com.cn
 t (86-757) 22805888 sgs.china@sgs.com

Table 4 Observations Made during the Test

Time(min:s)	Observation (All observations are from the unexposed face)
00:00	Furnace fired and test was started.
05:12	A slight amount of smoke released from the ends of the floor assembly.
10:04	Some smoke released from the seam on the unexposed face of the floor assembly.
70:00	No obvious change on the unexposed face of the floor assembly.
90:00	No flames were found emitting from all downlight positions.
100:02	No obvious change on the unexposed face of the floor assembly.
120:00	The floor assembly was maintaining its integrity and insulation.
121:00	Test was terminated as per client requirement.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgsgroup.com.cn
t (86-757) 22805888 sgs.china@sgs.com

6. Conditions of Acceptance and Test Results

According to the conditions of acceptance in UL 263:2022, Clause 3.3.8 & 10.6.1 and ASTM E119:2022, Clause 7.3.1.4 & 8.6.6 and CAN/ULC-S101-07, Clause 10.7, the specimen shall have sustained the applied load during the classification period without developing unexposed surface conditions which will ignite cotton waste.

Transmission of heat through the test specimen throughout the fire endurance test shall not raise the average temperature measured by the stationary thermocouples on its unexposed surface more than 139°C above its initial average temperature; nor shall the temperature rise at any individual point exceed 180°C including a temperature measured by the roving thermocouple.

Test Results Summary	
Items	Test Results
Ignition of cotton	Meet Not ignition of cotton
Temperature rise of unexposed surface	Meet The average temperature rise of unexposed surface is 85.5°C. The maximum temperature rise of unexposed surface is 177.3°C.

7. Conclusion

The test specimen was found to **comply with** the conditions of acceptance of UL 263:2022/ ASTM E119:2022 /CAN/ULC-S101-07 for 120 minutes fire resistance rating.

8. Limitation

The results only relate to the behaviour of the sample of the element of construction under the particular conditions of the test. They are not intended to be the sole criteria for assessing the potential fire performance of the element in use nor do they reflect the actual behaviour in fires.

The test results relate only to the sample tested. The fire resistance performance of sample of this design may change if different dimensions, different gaps, incorporating different components, or mounted within different construction.

SGS is not responsible for the authenticity, integrity and results of the information which provided by client and / or the validity of the conclusion.

Note: This document cannot be reproduced except full, without prior written approval of the Company.

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300

t (86-757) 22805888

www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号楼首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



Photo Appendix:



Front view of specimen B



Side view of specimen B



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com.cn
 t (86-757) 22805888 sgs.china@sgs.com



Front view of specimen C



Side view of specimen C



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

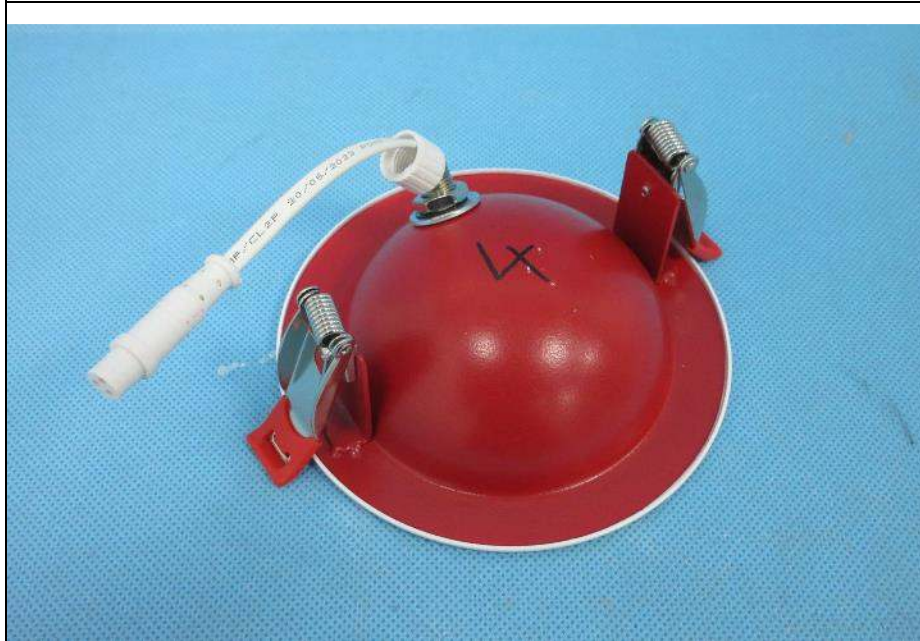
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com.cn
 t (86-757) 22805888 sgs.china@sgs.com



Front view of specimen D



Side view of specimen D

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com
 t (86-757) 22805888 sgs.china@sgs.com





Front view of specimen E



Side view of specimen E

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

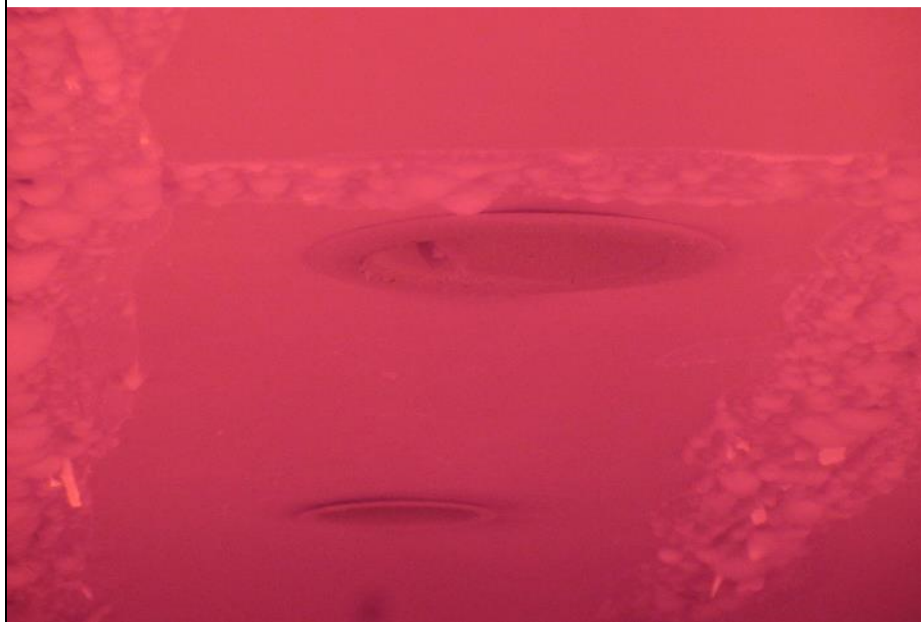
1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgsgroup.com.cn
 t (86-757) 22805888 sgs.china@sgs.com





The exposed face before the test



The exposed face after test duration of 31 minutes



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com.cn
 t (86-757) 22805888 sgs.china@sgs.com



The unexposed face after test duration of 40 minutes



The unexposed face after test duration of 92 minutes

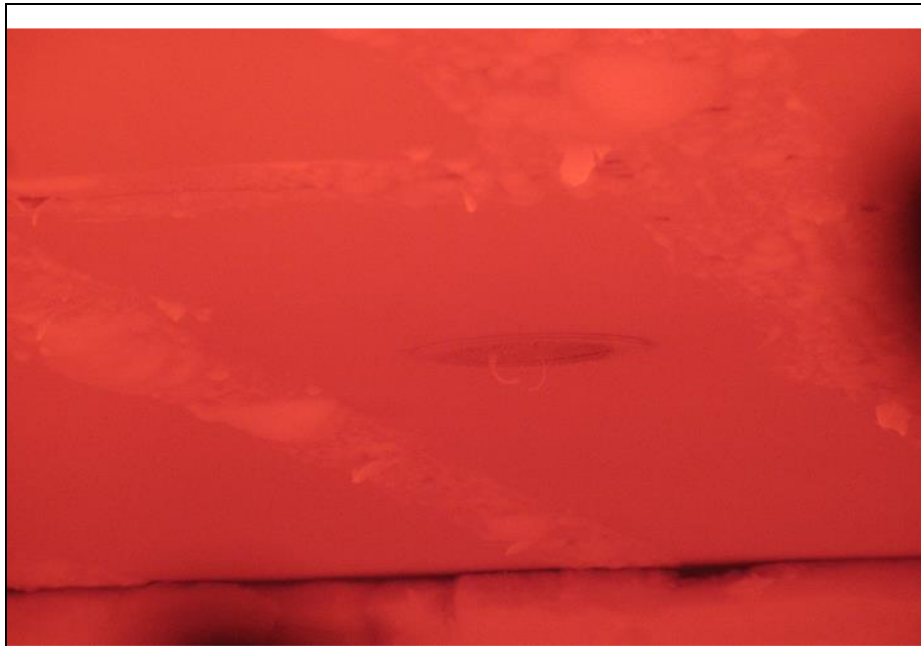


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.

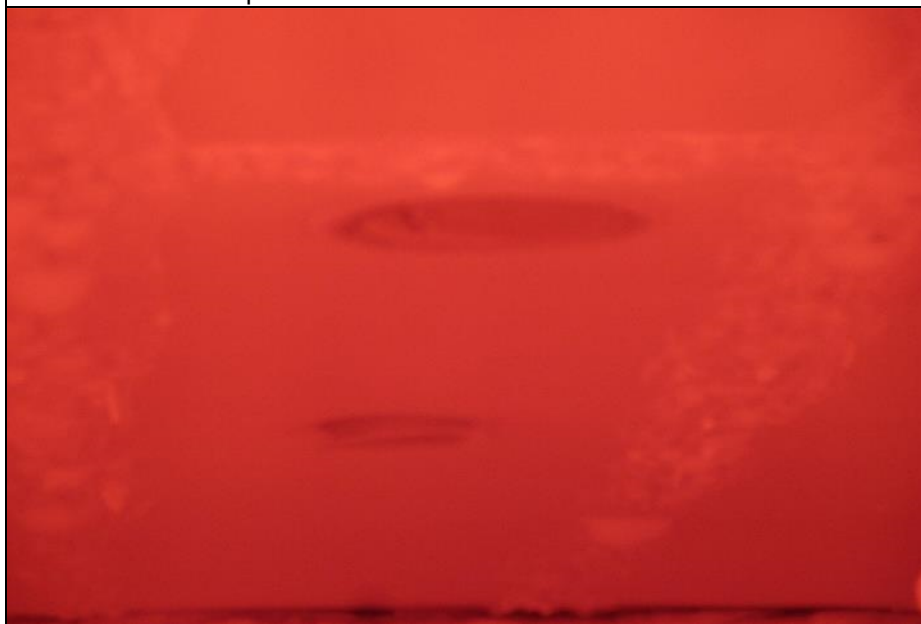
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2/F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com.cn
 t (86-757) 22805888 sgs.china@sgs.com



The exposed face after test duration of 112 minutes



The exposed face after test duration of 112 minutes



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com.cn
 t (86-757) 22805888 sgs.china@sgs.com



The exposed face after test duration of 120 minutes



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



The unexposed face after test duration of 120 minutes

SGS authenticate the photo on original report only

Remark: This test report is issued based on the modification of the original No. SDFS2307004007FR test report issued on Oct.12, 2023. And the original report is still valid. According to applicant's requirements, following changes are included:

- a. Change of applicant's name.
- b. Change of applicant's address.
- c. Change of model name.
- d. Delete the other information.
- e. Delete the manufacturer.
- f. Delete the factory.

End of Report



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. 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.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
 中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888 www.sgs.com
 t (86-757) 22805888 sgs.china@sgs.com