

Test Report

No. SDFS2407004763FR-01

Date: Feb.21, 2025

Page 1 of 37

SG ARMATUREN AS

SKYTTERHEIA 25, N-4790 LILLESAND, NORWAY

Sample Description: JUNISTAR ECO FIRERATED

The above sample(s) 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 arising therefrom. Results apply to the sample as received.

SGS Ref. No.: SZIN2407001502PL01

Sample Receiving Date: Jul.02, 2024

Test Performing Date: Jul.02, 2024 to Aug.01, 2024

Test Requested:

The fire resistance performance of a loadbearing timber floor assembly protected by a plasterboard ceiling, incorporating eight Junistar Eco FireRated, in accordance with EN 1363-1:2020 fire resistance tests -Part 1: General requirements and EN 1365-2:2014 Fire resistance tests for loadbearing elements -Part 2: Floors and roofs.

Test Results: -- See attached sheet --

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

Ada Liu
Approved signatory

Scan to see the report



SDFS2407004763FR-01
Verification:
check.sgsonline.com.cn



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.sgs.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

CONTENTS

1. INTRODUCTION 3

2. SUMMARY 3

3. SPECIMEN CONSTRUCTION AND INSTALLATION 3

4. TEST PROCEDURE 11

5. TEST DATA AND OBSERVATION 12

6. PERFORMANCE CRITERIA 23

7. CONCLUSION..... 24

8. LIMITATION 24

APPENDIX PHOTOS..... 25



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) Co., Ltd.
Shunde Branch of SGS Standards Technical Services (Shunde) Co., Ltd.

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.sgs.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

1. INTRODUCTION

Determine the fire resistance performance of a loadbearing timber floor assembly protected by a plasterboard ceiling, incorporating eight Junistar Eco FireRated, when tested in accordance with EN 1365-2:2014 Fire resistance tests for loadbearing elements part 2: Floors and roofs.

The ceiling face of the floor assembly was exposed to elevated temperatures as dictated by the EN 1363-1:2020 time-temperature curve for a period of 60 minutes under loadbearing condition.

The test was conducted on Jul.18, 2024.

2. SUMMARY

The ceiling incorporated eight Junistar Eco FireRated satisfied the performance requirement for the following periods:

PERFORMANCE CRITERIA	RESULTS
Loadbearing capacity	60 minutes
Integrity	60 minutes
Insulation	60 minutes

The test was terminated after a period of 61 minutes as requested by the sponsor.

3. SPECIMEN CONSTRUCTION AND INSTALLATION

The timber floor had overall nominal dimensions of 4400 mm long by 3600 mm wide and comprised I -Joists at 600 mm centres. The upper surface of the floor comprised one layer nominally 18 mm thick Egger chipboard flooring.

The floor assembly was protected on its underside by a direct fixed ceiling, formed from two layers of 12 mm thick plasterboard, both layers were screw fixed to the underside of the floor joists.

One layer of 200mm thick glasswool was filled within the cavity between the floor and the ceiling.

The floor supported an evenly distributed load of 100 kg/m². The load that was applied as specified by the sponsor 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

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.sgs.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



The ceiling incorporated eight Junistar Eco FireRated referenced as follows:

Specimen No.	Model	Description
A & C	Junistar Eco G2 (without plastic ring)	Size: Ø90 mm by 40 mm high, fixed downlight, Ø76mm cut-out
B & D	Junistar Eco (with plastic ring)	Size: Ø90 mm by 40 mm high, fixed downlight, Ø83mm cut-out
E & F	Junistar Eco (without plastic ring)	Size: Ø90 mm by 40 mm high, fixed downlight, Ø76mm cut-out
G & H	Junistar Eco G2 (with plastic ring)	Size: Ø90 mm by 40 mm high, fixed downlight, Ø83mm cut-out

SCHEDULE OF COMPONENTS

ITEM

DESCRIPTION

1. Timber Floor

1.1 Floor Joists

- Materials : I - Joists
- Over section size : 63 mm thick by 240 mm deep
: Web thickness 9 mm;
- Dimensions : Flange thickness 63 mm;
: Flange width 45 mm
- Joint centres : 600 mm

1.2 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.

1.3 Ceiling boards

- Manufacturer : NORGIPS
- Materials : Plasterboard
- Thickness : 2 layer, 12mm thick
- Fixing method : All board joints staggered with respect to adjacent layer and screw fixed to all joists using drywall steel screws, 35 mm long by 3.9 mm diameter screws for first layer.



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.sgs.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

1.4 Insulation

Materials : Glasswool
 Thickness : 200mm
 Fixing method : Filled into the cavity between the floor and the ceiling

2. Specimen "A & C"

Hole size in ceiling : 76mm
 boards

3. Specimen "B & D"

Hole size in ceiling : 83mm
 boards

4. Specimen "E & F"

Hole size in ceiling : 76mm
 boards

5. Specimen "G & H"

Hole size in ceiling : 83mm
 boards

The preparation of tested assembly took place in the test laboratory over a total combined time of 1 day. Throughout this period of time both the temperature and the humidity of the laboratory were measured and recorded as being within a range of from 29.4 °C to 30.5 °C and 60% to 66% respectively.

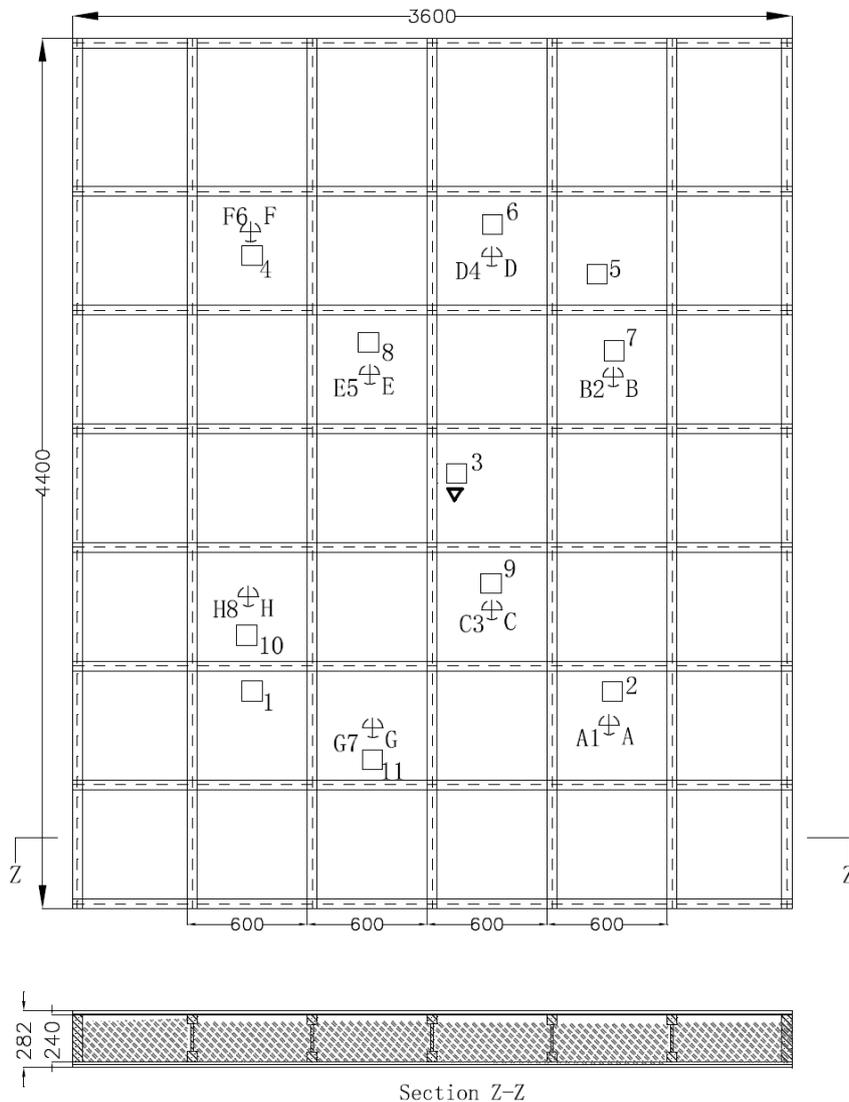
The tested sample was supported on the horizontal furnace with an opening of the 3950 mm by 3100 mm. At the request of sponsor, the sample was mounted such that ceiling face of the floor assembly towards to the heating conditions of the test.



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
 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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

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



- surface mounted thermocouples on upper surface of floorboards(1-11)
- + mineral insulated thermocouples at mid-cavity, adjacent to each downlight(A1-H8)
- Sample A~H
- ▽ Deflection measurement point

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.sgs.com cn

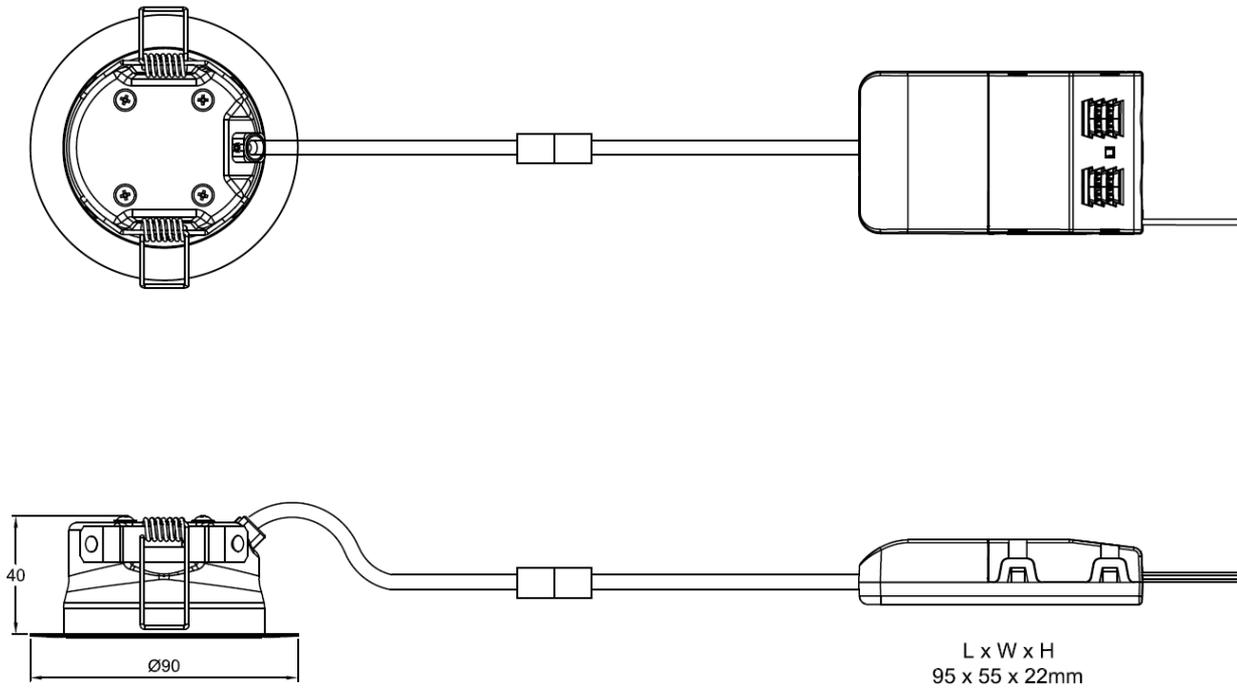
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



Figure 2 - Details of Downlights Specimen 'A & 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

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

t (86-757) 22805888

www.sgs.com.cn

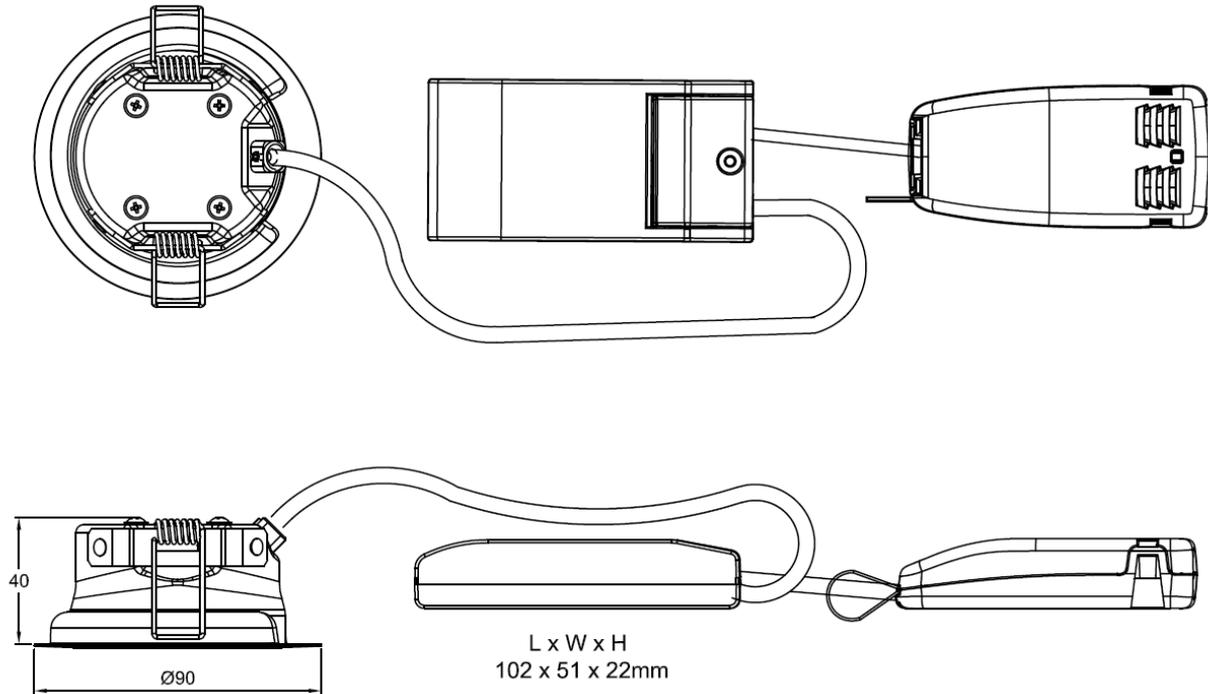
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



Figure 3 - Details of Downlights Specimen 'B & 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

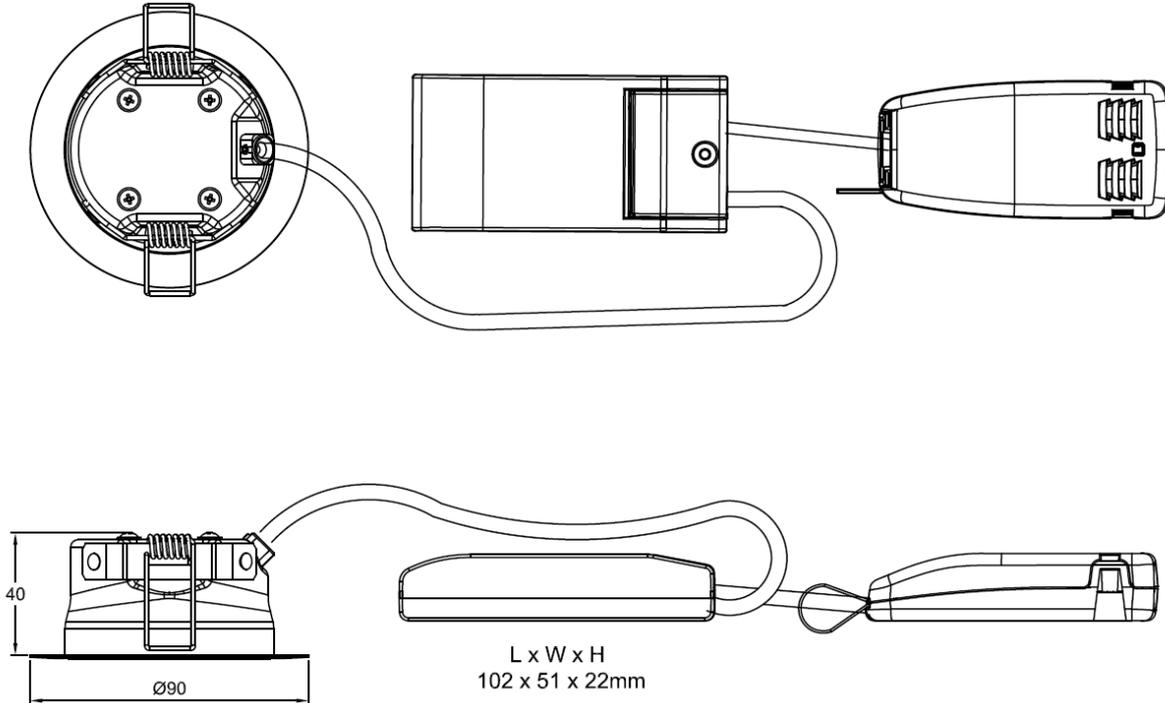
1-2/F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300

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



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

Figure 4 - Details of Downlights Specimen 'E & F'



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.sgs.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

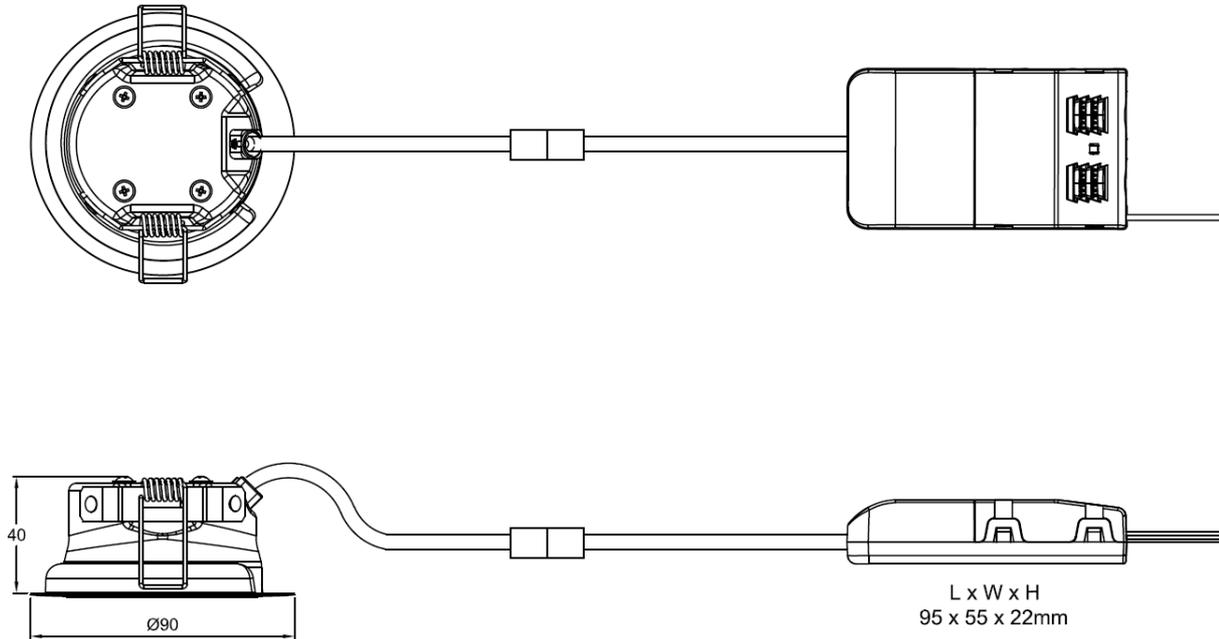
t (86-757) 22805888

sgs.china@sgs.com



SGS-CSI Standards Technical Services (Shunde) Co., Ltd.
Shunde Branch

Figure 5 - Details of Downlights Specimen 'H & G'



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号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



SGS-CSI Standards Technical Services (Shunde) Co., Ltd.
Shunde Branch

4. TEST PROCEDURE

The furnace was controlled so that the mean furnace temperature deviation from the mean furnace temperature and uniformity of temperature distribution complied with the requirement of EN1363-1:2020.

The locations and reference numbers of the various unexposed surface and internal thermocouples are shown in Figure 1.

The furnace pressure: shall be monitored and controlled. 5 min after the commencement of the test the furnace pressure shall be (0± 5) Pa 100 mm below the underside of the assembly; from 10 min onwards it shall be (0± 3) Pa 100 mm below the underside of the assembly. Irrespective of this, the nominal pressure on the underside of the test specimen shall not exceed 20Pa.

During the test, the temperatures and pressures were continuously monitored and were recorded at one minute interval.

Based on the requested of sponsor, the floor supported an evenly distributed load of 100 kg/m².

Gap gauges and cotton pad were used, if considered appropriate, to determine compliance with the integrity criterion. The occurrence of sustained flaming on the unexposed surface was also checked to determine compliance with the integrity criterion.

The deflection was measured from the commencement of heating by distance meter recorded at least one reading per minute.



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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

5. TEST DATA AND OBSERVATION

5.1 Condition

The ambient air temperature in the vicinity of the test construction was 30.9°C at the start of the test with variation of +0.4°C during the test.

5.2 Observations

Time		All observations are from the unexposed face unless noted otherwise
Mins	Secs	
00	00	Furnace fired and test was started.
14	30	A slight amount of smoke was released around the floor assembly. There was crack appearing on the gypsum board next to sample A on the exposed surface.
24	00	Cracks appeared on the gypsum board next to sample D and at the center of the entire floor assembly on the exposed surface.
32	00	Smoke release increased gradually around the floor assembly. The gap between the joints on the gypsum board were widening on the exposed surface.
40	00	The outer layer of gypsum board on the exposed surface begins to peel off.
46	00	The light fittings were being pulled out as the plasterboard falls away. The gypsum board was now sagging down, flames start to fill the furnace chamber.
52	00	Flames fill the furnace.
60	00	The floor assembly was maintaining its loadbearing capacity, integrity and insulation.
61	00	Test was terminated as per sponsor 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

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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

5.3 Deflection

Deflection Recorded on the Unexposed Surface of the Sample

Time (mins)	Deflection(mm)	Rate of Deflection (mm/min)
0	0.0	--
1	0.0	0.0
2	0.2	0.2
3	0.5	0.4
4	0.3	-0.3
5	0.4	0.1
6	0.4	0.0
7	0.7	0.4
8	0.7	0.0
9	0.7	0.0
10	0.7	0.0
11	0.7	0.0
12	0.7	0.0
13	0.7	0.0
14	0.7	0.0
15	0.7	0.0
16	0.7	0.0
17	0.7	0.0
18	0.7	0.0
19	0.7	0.0
20	0.7	0.0
21	0.7	0.0
22	0.7	0.0
23	0.7	0.0
24	0.7	0.0
25	0.7	0.0
26	0.7	0.0
27	0.7	0.0
28	0.7	0.0
29	0.7	0.0
30	0.7	0.0



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

Time (mins)	Deflection(mm)	Rate of Deflection (mm/min)
31	0.7	0.0
32	0.7	0.0
33	0.7	0.0
34	0.7	0.0
35	0.7	0.0
36	0.7	0.0
37	0.8	0.1
38	1.1	0.3
39	1.2	0.1
40	1.4	0.2
41	1.5	0.1
42	3.2	1.8
43	6.9	3.7
44	7.0	0.1
45	6.2	-0.9
46	6.4	0.3
47	6.9	0.5
48	6.8	-0.1
49	6.8	0.0
50	7.4	0.6
51	8.2	0.8
52	8.1	-0.1
53	8.4	0.3
54	9.3	0.9
55	9.4	0.1
56	9.6	0.2
57	10.0	0.4
58	10.1	0.1
59	11.0	0.8
60	11.4	0.5

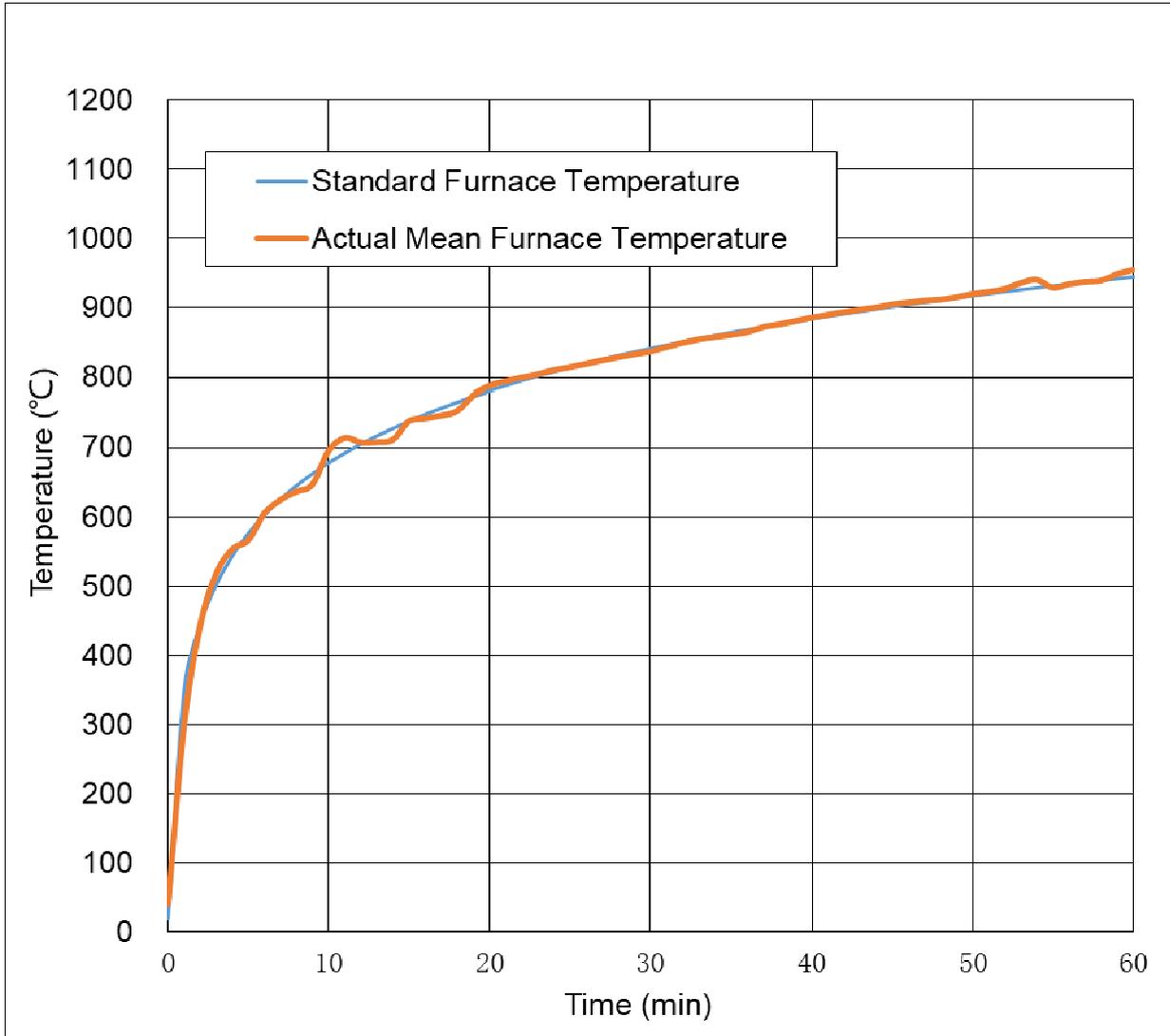


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction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

5.4 Furnace temperature record

The actual furnace temperature and standard furnace temperature/time curve showed in below figure.



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 actual average temperatures within the furnace recorded in below table:

Time (min)	EN 1363-1 Std Average (°C)	Furnace Average (°C)	Error (%)
0	20	40.5	-
1	349	299.6	-7.9%
2	445	442.4	-7.0%
3	502	517.9	-3.2%
4	544	553.3	-1.3%
5	576	566.3	-1.0%
6	603	605.0	-0.9%
7	626	624.6	-0.8%
8	645	636.6	-0.8%
9	663	647.3	-0.9%
10	678	695.6	-0.8%
11	693	714.1	-0.4%
12	705	707.5	-0.2%
13	717	707.8	-0.2%
14	728	711.7	-0.3%
15	739	738.4	-0.4%
16	748	742.1	-0.4%
17	757	746.2	-0.5%
18	766	753.0	-0.5%
19	774	775.2	-0.5%
20	781	787.9	-0.5%
21	789	794.6	-0.4%
22	796	799.8	-0.3%
23	802	804.3	-0.3%
24	809	810.5	-0.3%
25	815	814.6	-0.3%
26	820	819.3	-0.3%
27	826	824.5	-0.2%
28	832	828.9	-0.2%
29	837	833.2	-0.3%
30	842	837.1	-0.3%
31	847	843.4	-0.3%
32	851	849.8	-0.3%
33	856	854.8	-0.3%
34	860	858.1	-0.3%
35	865	861.2	-0.3%
36	869	865.5	-0.3%
37	873	872.7	-0.3%



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

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.sgs.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

Time (min)	EN 1363-1 Std Average (°C)	Furnace Average (°C)	Error (%)
38	877	876.6	-0.3%
39	881	881.4	-0.3%
40	885	886.3	-0.2%
41	888	890.3	-0.2%
42	892	894.2	-0.2%
43	896	897.8	-0.2%
44	899	901.0	-0.2%
45	902	905.3	-0.2%
46	906	908.0	-0.2%
47	909	910.7	-0.2%
48	912	912.3	-0.2%
49	915	915.6	-0.1%
50	918	920.3	-0.1%
51	921	923.4	-0.1%
52	924	927.6	-0.1%
53	927	936.2	-0.1%
54	930	941.0	-0.1%
55	932	929.4	-0.1%
56	935	934.6	-0.1%
57	938	938.0	-0.1%
58	940	939.8	-0.1%
59	943	949.1	-0.1%
60	945	955.3	0.0%

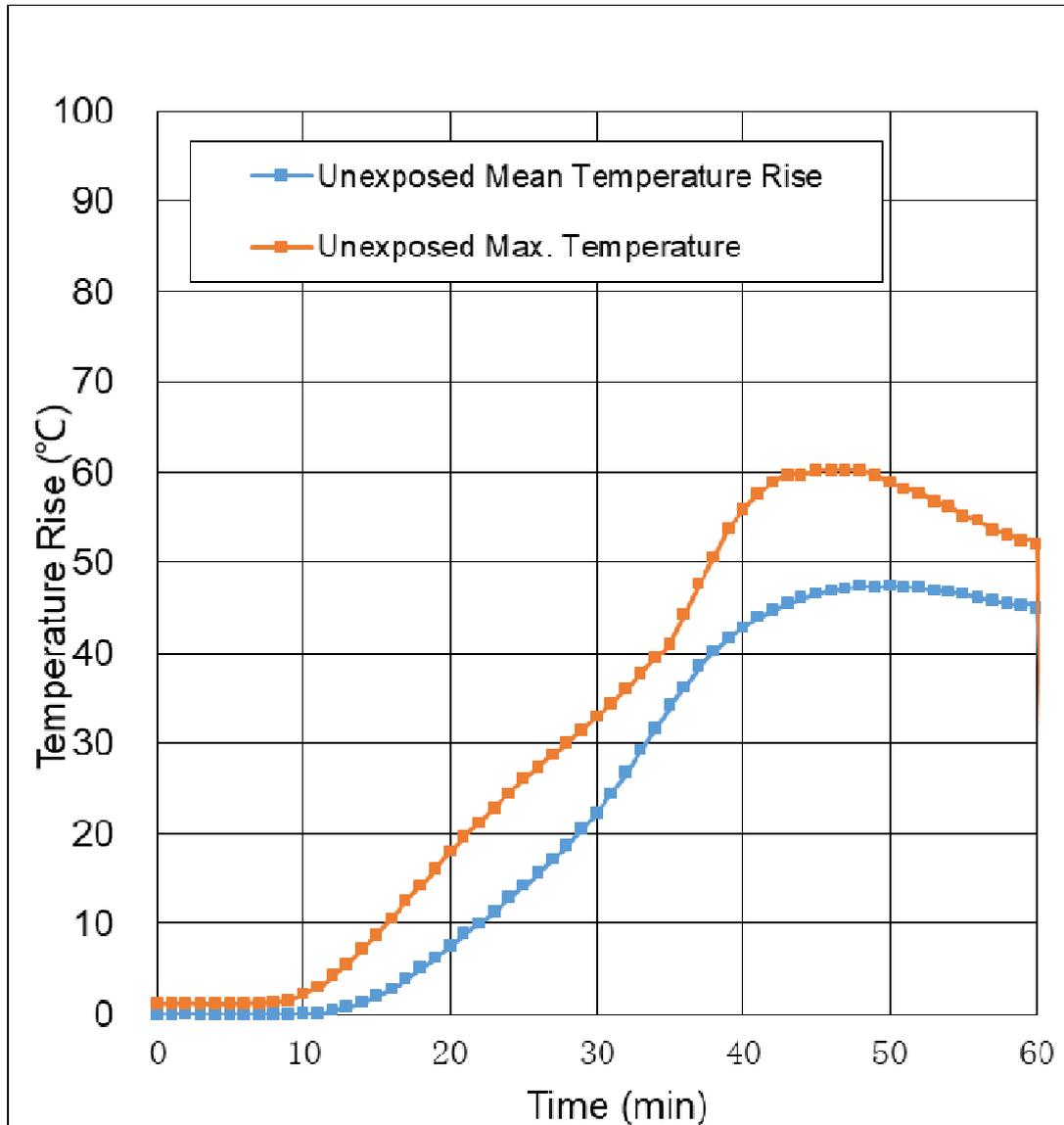


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction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

5.5 Unexposed surface and Cavity temperatures record

Unexposed Surface Mean and Maximum Temperature Rise / 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

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号欧洲工业园一号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com



SGS-CS Standards Technical Services Co., Ltd.
Shunde Branch / 佛山顺德分公司

Individual Temperatures on the Unexposed Surface of the floor

Time (mins)	Thermocouples temperatures (°C)												Mean Rise	Max. Rise
	1#	2#	3#	4#	5#	6#	7#	8#	9#	10#	11#			
0	32.9	33.3	33.0	32.1	32.9	32.9	32.7	33.1	33.7	33.8	34.0	0.0	1.2	
1	32.8	33.2	33.0	32.1	32.8	32.9	32.7	33.0	33.7	33.8	33.9	0.0	1.1	
2	32.9	33.3	33.0	32.2	32.9	32.9	32.8	33.1	33.7	33.8	34.0	0.1	1.2	
3	32.8	33.2	33.0	32.1	32.8	32.9	32.7	33.0	33.6	33.7	33.9	0.0	1.1	
4	32.8	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.8	33.7	33.9	0.0	1.1	
5	32.8	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.6	33.7	33.9	0.0	1.1	
6	32.9	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.9	33.8	34.0	0.0	1.2	
7	32.8	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.8	33.7	34.0	0.0	1.2	
8	32.9	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.7	33.8	34.1	0.0	1.3	
9	32.9	33.2	33.0	32.1	32.8	32.8	32.7	33.0	33.7	34.0	34.3	0.0	1.5	
10	33.0	33.2	33.1	32.3	32.9	32.8	32.8	33.1	34.0	34.5	35.0	0.1	2.2	
11	32.9	33.2	33.1	32.5	32.9	32.8	32.8	33.1	33.9	35.0	35.7	0.1	2.9	
12	33.3	33.4	33.3	33.2	33.2	33.0	33.1	33.5	34.0	35.7	37.0	0.5	4.2	
13	33.6	33.6	33.4	34.0	33.4	33.1	33.4	33.9	34.1	36.8	38.3	0.8	5.5	
14	34.0	33.9	33.6	35.1	33.7	33.4	33.8	34.4	34.3	38.2	40.0	1.3	7.2	
15	34.8	34.4	34.0	36.5	34.2	34.0	34.4	35.2	34.4	39.7	41.6	2.0	8.8	
16	35.7	35.2	34.3	38.2	34.8	34.8	35.1	36.1	35.5	41.5	43.4	2.8	10.6	
17	37.0	36.2	34.9	40.1	35.5	35.8	36.0	37.2	36.5	43.3	45.3	3.9	12.5	
18	38.3	37.3	35.5	42.2	36.3	37.2	37.0	38.3	37.7	45.3	47.0	5.1	14.2	
19	39.8	38.3	35.9	44.1	37.1	38.7	37.9	39.4	38.8	47.2	48.8	6.2	16.0	
20	41.5	39.6	36.7	46.2	38.0	40.6	39.0	40.7	40.2	49.1	50.7	7.6	17.9	
21	42.9	41.0	37.3	48.1	39.0	42.5	40.0	42.1	41.6	50.9	52.4	8.9	19.6	
22	44.4	42.3	38.0	49.9	40.1	44.3	41.0	43.3	42.9	52.6	54.0	10.1	21.2	
23	45.8	43.9	38.7	51.6	41.2	46.1	42.0	44.7	44.3	54.1	55.6	11.4	22.8	
24	47.5	45.3	39.6	53.1	42.4	47.8	42.9	45.9	45.6	55.6	57.2	12.8	24.4	
25	49.2	46.8	40.7	54.6	43.7	49.4	43.9	47.2	47.0	57.0	58.8	14.2	26.0	
26	50.5	48.3	42.1	55.9	45.0	50.8	44.8	48.6	48.4	58.2	60.1	15.6	27.3	
27	52.2	49.7	43.7	57.3	46.4	52.0	45.6	50.1	49.8	59.4	61.5	17.1	28.7	
28	54.1	51.1	45.8	58.6	48.1	53.3	46.3	51.9	51.4	60.4	62.8	18.7	30.0	
29	56.1	52.5	48.1	59.9	49.7	54.6	47.0	53.9	53.0	61.3	64.2	20.5	31.4	
30	58.2	53.7	50.7	61.2	51.5	55.7	47.8	56.1	54.6	62.6	65.7	22.3	32.9	
31	60.9	55.1	54.2	62.5	53.6	56.9	48.9	59.0	56.5	63.8	67.1	24.5	34.3	
32	63.2	56.4	58.2	63.9	55.8	58.0	50.0	62.1	58.5	65.0	68.8	26.7	36.0	
33	66.4	57.7	62.8	65.4	57.9	59.0	51.1	65.6	60.6	66.2	70.5	29.2	37.7	
34	68.6	59.1	67.6	66.9	59.8	60.0	52.2	69.5	62.7	67.3	72.2	31.6	39.4	
35	71.1	60.6	72.4	68.2	62.0	61.0	53.5	73.5	64.8	68.8	73.8	34.1	41.0	

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

1-2/F, Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Dailing, 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



Time (mins)	Thermocouples temperatures (°C)												
	1#	2#	3#	4#	5#	6#	7#	8#	9#	10#	11#	Mean Rise	Max. Rise
36	73.2	61.5	76.7	69.7	64.1	62.0	54.8	77.0	66.8	70.2	75.3	36.2	44.2
37	75.6	62.8	80.3	71.1	66.0	63.0	56.2	80.2	68.6	71.5	76.6	38.4	47.5
38	77.1	64.0	83.0	72.5	67.9	64.1	57.4	83.3	70.3	72.9	77.9	40.1	50.5
39	78.7	65.0	84.9	74.0	70.0	65.0	58.6	86.5	71.8	74.2	79.2	41.7	53.7
40	79.3	66.1	85.6	75.2	72.0	66.0	59.6	88.6	73.0	75.4	80.5	42.8	55.8
41	80.5	66.9	85.9	76.4	73.6	66.7	60.7	90.3	73.9	76.6	81.2	43.9	57.5
42	81.1	68.0	85.8	77.4	75.4	67.9	61.8	91.6	74.9	77.7	81.9	44.7	58.8
43	81.5	68.8	85.4	78.3	76.9	68.6	63.0	92.5	75.6	78.6	82.5	45.4	59.7
44	81.9	69.5	85.0	79.1	78.3	69.5	64.1	92.5	76.3	79.4	82.9	46.0	59.7
45	82.3	70.2	84.6	79.8	79.5	70.3	65.1	92.9	76.9	80.0	83.2	46.5	60.1
46	82.5	71.1	83.9	80.4	80.6	70.8	66.1	93.0	77.4	80.6	83.4	46.9	60.2
47	82.6	71.7	83.4	80.6	81.4	71.7	67.0	93.0	77.8	80.8	83.6	47.1	60.2
48	82.6	72.2	82.9	80.9	82.2	72.3	67.6	92.9	78.1	81.1	83.4	47.4	60.1
49	81.9	72.8	82.3	81.2	82.5	72.9	68.2	92.5	78.3	81.3	83.4	47.3	59.7
50	82.0	73.3	81.9	81.2	82.8	73.3	68.8	91.6	78.5	81.4	83.1	47.4	58.8
51	81.4	73.7	81.4	81.1	82.7	73.6	69.1	90.9	78.5	81.2	82.7	47.3	58.1
52	80.9	74.1	80.9	81.1	82.8	74.0	69.3	90.5	78.6	81.2	82.4	47.2	57.7
53	80.5	74.3	80.5	80.7	82.5	74.2	69.6	89.5	78.4	81.0	81.8	46.9	56.7
54	80.6	74.6	80.1	80.4	82.4	74.2	69.7	89.0	78.3	80.8	81.2	46.8	56.2
55	80.2	74.7	79.4	80.0	82.2	74.4	69.7	88.0	78.1	80.7	80.6	46.5	55.2
56	79.5	74.8	78.9	79.7	81.6	74.4	69.9	87.4	77.9	80.5	80.0	46.1	54.6
57	79.0	74.8	78.6	79.4	81.3	74.4	69.8	86.4	77.7	80.2	79.6	45.8	53.6
58	78.6	74.9	78.1	79.1	80.8	74.4	69.9	85.9	77.5	79.9	79.2	45.5	53.1
59	78.9	74.8	77.6	78.7	80.5	74.4	70.3	85.2	77.2	79.8	79.1	45.3	52.4
60	78.7	74.8	77.1	78.3	80.0	74.3	70.7	84.8	76.9	79.6	78.7	45.0	52.0



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

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

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1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

Individual Temperatures Recorded Adjacent to the Downlight Fittings at Mid-height of the Cavity

Time (mins)	Thermocouples temperatures (°C)							
	A1	B2	C3	D4	E5	F6	G7	H8
0	31.5	31.4	31.4	31.3	31.4	31.5	31.1	31.4
1	31.4	31.4	31.4	31.2	31.4	31.5	31.2	31.4
2	31.4	31.4	31.4	31.3	31.4	31.6	31.2	31.4
3	31.5	31.4	31.4	31.3	31.4	31.4	31.2	31.3
4	31.5	31.5	31.5	31.3	31.5	31.8	31.5	31.4
5	31.5	31.7	31.5	31.3	31.5	32.5	33.8	31.3
6	31.5	32.3	31.6	31.3	31.6	37.4	47.3	31.3
7	31.8	34.0	32.1	31.4	34.8	46.7	63.7	31.4
8	32.8	38.0	34.6	31.9	56.9	55.7	72.7	31.5
9	35.4	45.5	41.4	33.3	74.4	63.4	78.3	32.3
10	40.2	53.3	49.6	36.0	82.1	69.0	83.0	37.0
11	47.0	59.8	57.2	39.6	85.8	73.2	85.6	50.5
12	53.0	64.6	64.1	43.4	88.5	77.0	87.5	61.5
13	57.6	68.8	69.0	47.4	90.5	80.3	89.8	67.5
14	61.0	72.5	73.0	51.0	91.6	82.9	91.4	71.0
15	63.5	75.7	76.2	54.3	92.2	85.1	92.0	73.5
16	65.5	78.2	78.8	57.7	92.4	86.9	92.1	76.1
17	67.1	80.2	81.0	60.5	92.7	87.9	92.0	78.5
18	68.8	81.9	83.0	63.3	92.8	88.9	92.0	81.4
19	70.2	83.0	84.6	66.0	92.6	89.7	92.0	84.6
20	71.4	83.8	86.0	68.3	92.4	90.6	92.3	87.6
21	72.4	84.5	86.9	70.5	92.6	91.4	92.7	89.1
22	73.0	85.4	87.4	73.5	93.0	92.4	93.3	89.5
23	73.9	86.5	88.0	77.2	93.4	93.2	94.1	89.2
24	74.8	87.6	88.6	81.1	93.7	93.5	94.7	89.0
25	75.8	88.6	89.0	84.7	94.3	93.7	95.1	89.4
26	77.3	89.6	89.2	88.0	95.2	94.2	95.4	90.9
27	79.0	90.8	89.1	90.4	95.9	94.9	95.8	93.2
28	81.1	92.0	89.1	92.3	96.3	95.6	96.0	94.7
29	83.2	93.1	89.7	93.6	96.3	95.9	96.0	95.9
30	85.8	93.8	90.4	94.7	95.9	96.3	96.1	96.3
31	87.1	94.2	91.3	95.5	95.8	96.8	96.5	96.6
32	87.3	94.7	91.9	96.1	95.6	97.0	96.5	96.5

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, Dailing, 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

Time (mins)	Thermocouples temperatures (°C)							
	A1	B2	C3	D4	E5	F6	G7	H8
33	87.5	95.5	92.5	96.7	95.8	97.4	96.8	96.4
34	87.9	96.0	93.1	97.1	96.1	97.7	97.0	96.4
35	88.5	96.4	93.7	97.4	96.4	97.8	97.2	96.7
36	89.2	96.7	94.4	97.8	96.8	97.9	97.3	96.8
37	89.7	96.9	94.8	98.1	96.9	98.2	97.2	97.1
38	89.8	97.0	95.1	98.3	96.7	97.8	96.7	96.7
39	89.9	97.1	95.4	98.5	96.6	97.5	96.4	96.5
40	90.1	97.0	95.6	98.6	96.7	97.5	96.3	96.8
41	90.4	97.0	95.8	98.7	96.6	97.5	95.7	96.8
42	90.7	97.0	96.1	98.8	96.5	97.6	95.4	96.9
43	90.9	97.0	96.3	98.8	96.4	97.6	94.9	96.9
44	91.1	97.0	96.5	98.8	96.4	97.6	94.4	96.8
45	90.1	96.9	96.5	98.8	96.4	97.4	94.0	96.7
46	89.1	96.8	96.5	98.7	96.2	97.1	93.7	96.3
47	88.1	96.6	96.3	98.5	95.7	96.8	93.4	96.0
48	87.2	96.4	96.0	98.2	95.0	96.2	93.0	95.4
49	86.4	96.1	95.7	97.9	94.0	95.6	92.6	94.7
50	85.7	95.7	95.4	97.2	93.1	94.8	92.8	93.8
51	84.9	95.4	95.0	96.5	92.4	94.4	93.0	93.1
52	84.1	94.6	94.7	96.0	91.4	95.2	93.2	92.4
53	83.5	94.2	94.3	95.6	90.8	99.0	93.4	91.8
54	83.0	93.9	94.0	95.3	90.5	106.5	93.4	91.0
55	84.1	93.5	93.6	95.0	90.5	119.1	94.3	90.5
56	89.5	93.3	93.4	94.8	90.7	138.6	97.7	90.0
57	107.0	92.8	93.2	94.7	91.1	165.7	107.1	89.4
58	131.9	92.1	92.7	94.5	91.2	200.9	119.6	88.8
59	163.8	91.1	92.4	94.3	91.4	242.0	134.8	88.1
60	195.6	90.3	92.2	94.1	91.6	286.3	154.3	87.0

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

1-2/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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com



6. PERFORMANCE CRITERIA

The performance of the sample was assessed against the criteria for integrity and insulation in accordance with EN 1363-1:2020, Clause 11.

Loadbearing capacity: Failure is deemed to occur:

- a) measured deflection $\geq 1,5 \times D_{limit}$ or
- b) D_{limit} and $(dD/dt)_{limit}$ are exceeded

The limiting deflection and the limiting rate of deflection for the specimen, as calculated as:

Item	Value
L: is the clear span (mm)	3950
d: Depth of structural section (mm)	283
D_{limit} -- Limiting deflection ($L^2/400d$) (mm)	137.8
$(dD/dt)_{limit}$ -- Limiting rate of deflection ($L^2/9000d$) (mm/min)	6.1
Measured deflection $\geq 1.5x (L^2/400d)$ (mm)	206.7

Integrity: Failure is deemed to occur:

- a) When collapse occurs; or
- b) When sustained flaming for not less than 10s on the unexposed surface occurs; or
- c) For situations where the cotton pad is suitable, when flames and/or hot gases cause flaming or glowing of the cotton fibre pad; or
- d) For situations where the cotton pad is not suitable, when either:
 - i) the 6 mm diameter gap gauge can be passed through the test specimen, such that the gauge projects into the furnace, and can be moved a distance of 150 mm along the gap; or
 - ii) the 25 mm diameter gap gauge can be passed through the test specimen such that the gauge projects into the furnace.

Insulation: Failure is deemed to occur:

- a) When the mean unexposed surface temperature rise more than 140 K; or
- b) When the temperature rise recorded at any position on the unexposed surface, either by a fixed thermocouple or by the roving thermocouple is in excess of 180 K; or
- c) When integrity failure occurs.



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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

7. CONCLUSION

The ceiling incorporated eight Junistar Eco FireRated satisfied the performance requirement for the following periods:

PERFORMANCE CRITERIA	RESULTS
Loadbearing capacity	60 minutes
Integrity	60 minutes
Insulation	60 minutes

The test was terminated after a period of 61 minutes as requested by the sponsor.

According to clause 7.3.3 Classification of loadbearing floors and roofs with fire separating function of EN 13501-2:2023 and test results, the ceiling incorporated eight Junistar Eco FireRated can be classified as:

REI 60

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. Any significant deviation with respect to size, constructional details, loads, stresses, edge or end conditions other than those allowed under the field of direct application in the relevant test method is not covered by this report. Annex A of BS EN 1363-1: 2020, provides guidance information on the application of fire resistance tests and the interpretation of test data.

The sample was asymmetrical and was tested such that the specified surface towards the heating conditions of the test. The test result may not be appropriate to situation other side towards the heating conditions.

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号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com



APPENDIX PHOTOS



Front view of Sample H



Side view of Sample H

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.sgs.com

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1号厂房首层、二层 邮编: 528300

t (86-757) 22805888

sgs.china@sgs.com





Front view of Sample G



Side view of Sample G

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





Front view of Sample C



Side view of Sample 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

1-2/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





Front view of Sample A



Side view of Sample A

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1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 Sample B



Side view of Sample 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

1-2/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





Front view of Sample D



Side view of Sample 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

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

t (86-757) 22805888

www.sgs.com

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





Front view of Sample E



Side view of Sample 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

1-2/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





Front view of Sample F



Side view of Sample F

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.sgs.com

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





The exposed face of the ceiling before the test

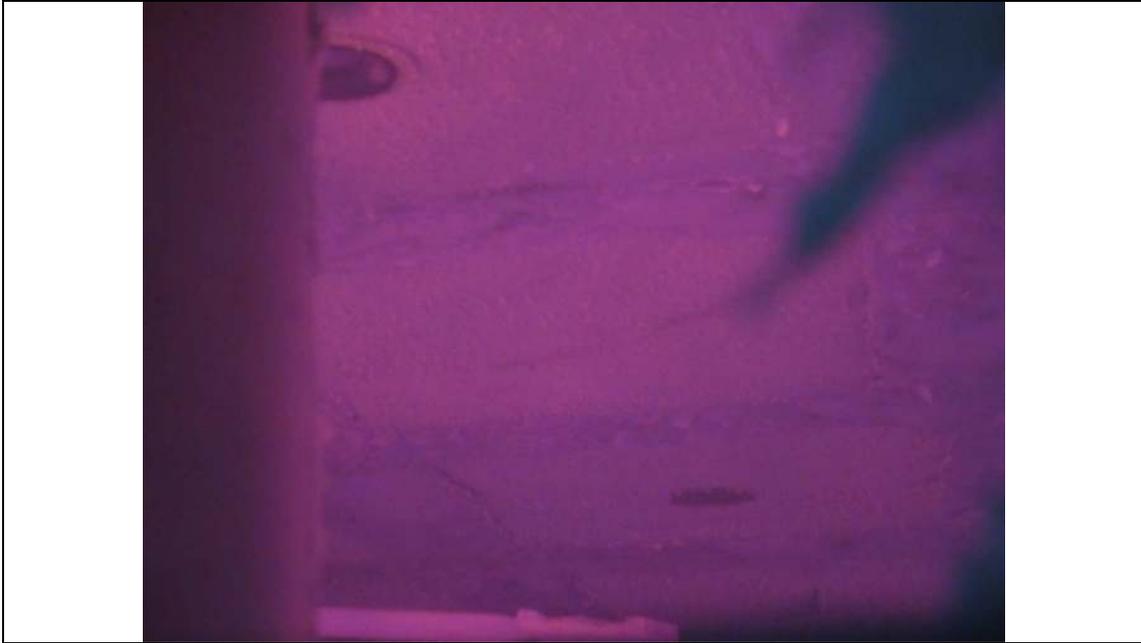


The unexposed face of the floor assembly before the test

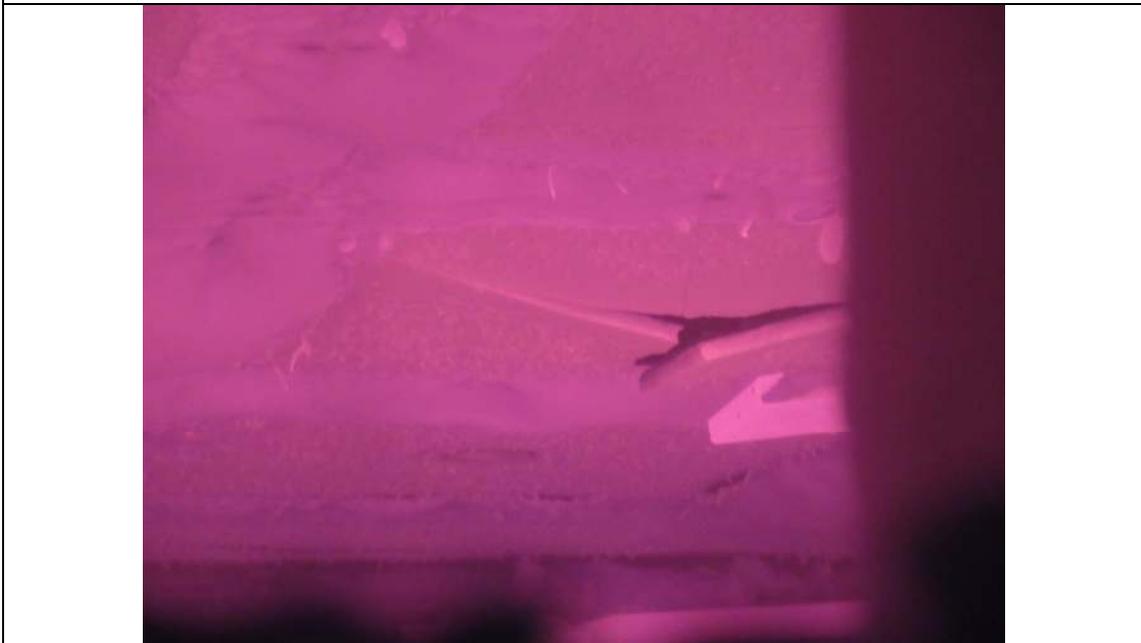


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction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



The exposed face of the ceiling after 14 minutes of testing



The exposed face of the floor assembly after 24 minutes of testing



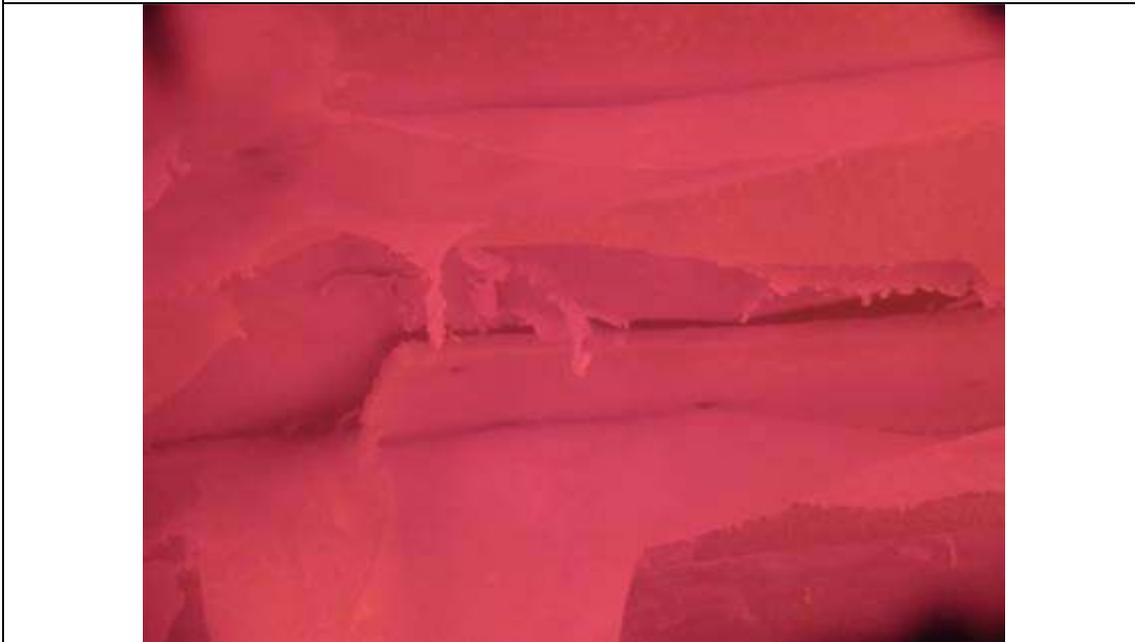
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction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



The unexposed face of the ceiling after 32 minutes of testing



The exposed face of the floor assembly after 40 minutes of testing

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 unexposed face of the floor assembly after 46 minutes of testing



The exposed face of the floor assembly after 52 minutes of testing



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 of the floor assembly after 60 minutes of testing

SGS authenticate the photo on original report only

Remark:

This test report is issued based on the modification of the original No. SDFS2407004763FR test report issued on Aug.01, 2024. And the original test reports (paper and electronic) are invalid. According to applicant's requirements, following changes are included:

- a. Add the class of EN 13501-2:2023.

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

1-2/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