

## TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 1 of 7

CUSTOMER NAME: NANJING GUHUA METALWORK CO., LTD.  
ADDRESS: XIONGZHOU INDUSTRIAL PARK, LUHE DISTRICT, NANJING, P.R  
CHINA

Sample Name : RINGLOCK STEEL PLANK  
Product specification : 1.4M×0.32M  
Material and Mark : Q235  
Manufacturer : NANJING GUHUA METALWORK CO., LTD.

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

\*\*\*\*\*

Test Required : Drop test  
Test Method : EN 12810-2:2003  
SGS Ref. No. : NJIN1709003778ML  
Date of Receipt : Sep. 15, 2017  
Testing Start Date : Sep. 15, 2017  
Testing End Date : Sep. 26, 2017  
Test result(s) : For further details, please refer to the following page(s)  
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for  
SGS-CSTC Standards Technical  
Services ( Shanghai ) Co., Ltd.

Joyce Li  
Authorized signatory



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编:201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e sgs.china@sgs.com

## TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

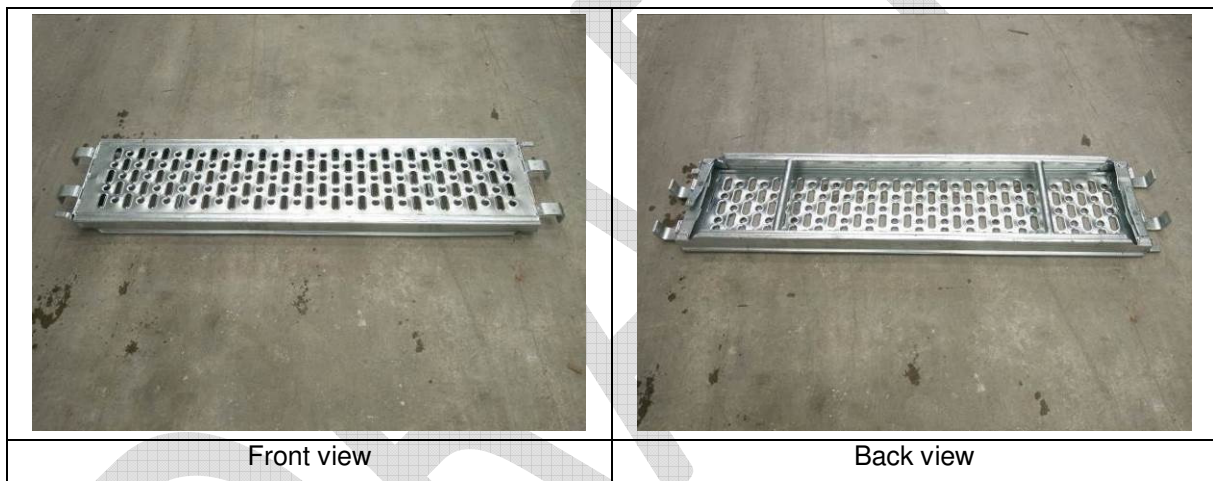
Page: 2 of 7

### Summary of Result(s):

No.	Test Item	Test Method	Result	Conclusion
1	Drop test	EN 12810-2:2003 Annex B	The ball can be retained after test	Pass

Note: Pass : Meet the requirements;  
 Fail : Does not meet the requirements;  
 / : Not Apply to the judgment.

### Original Sample Photo(s):



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
 Testing Center Commercial Construction Material Laboratory

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

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](mailto:CN.Doccheck@sgs.com)

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
 中国·上海·浦东康桥东路1159弄69号 邮编: 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

## TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 3 of 7

1. Test item: Drop test

Test method: EN 12810-2:2003 Annex B

Test condition:

Platform unit size: 1400mm×320mm (Length × Width)

Drop height: 2.5m

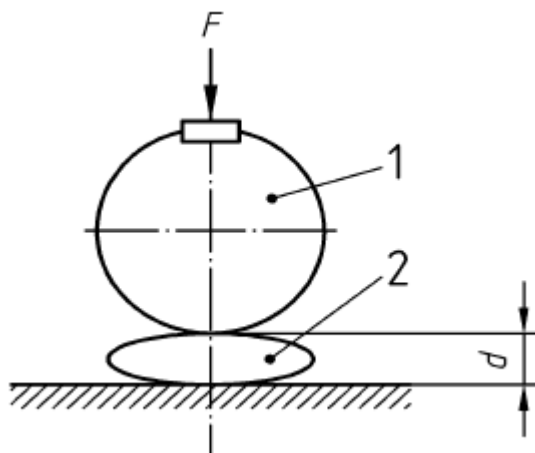
Steel ball: Φ50mm,100kg;

1.1 Damping pillow stiffness characteristics test:

Dimensions of damping pillow: 500mm×500mm×250mm (Length × Width × Thickness)

Material: Foam

Diagram of test



1-ball, 2-damping pillow

Apply a compression load via the steel ball to the damping pillow till the displacement up to 80mm, check whether the displacement-load curve meet the permitted curve below or not.



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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

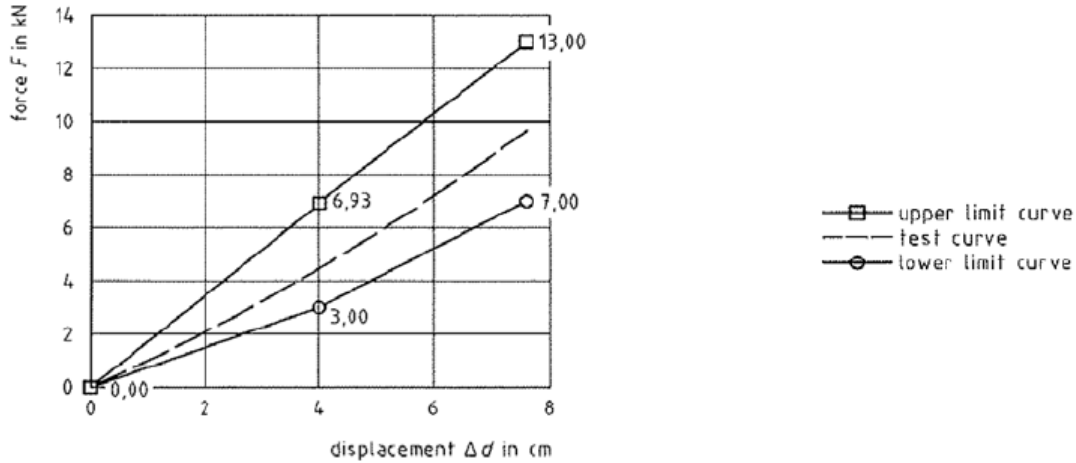
No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编:201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e sgs.china@sgs.com

## TEST REPORT

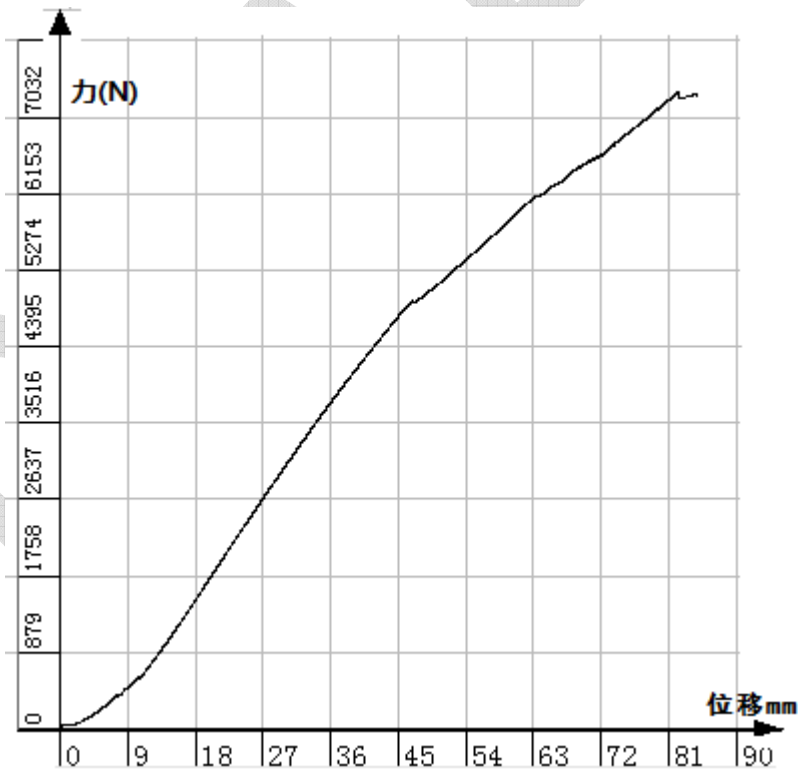
No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 4 of 7



The test curve:



Displacement-load curve of damping pillow



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编:201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e sgs.china@sgs.com

## TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 5 of 7

The test curve above shows that the foam meet the requirement of permitted curve in EN 12810-2:2003.

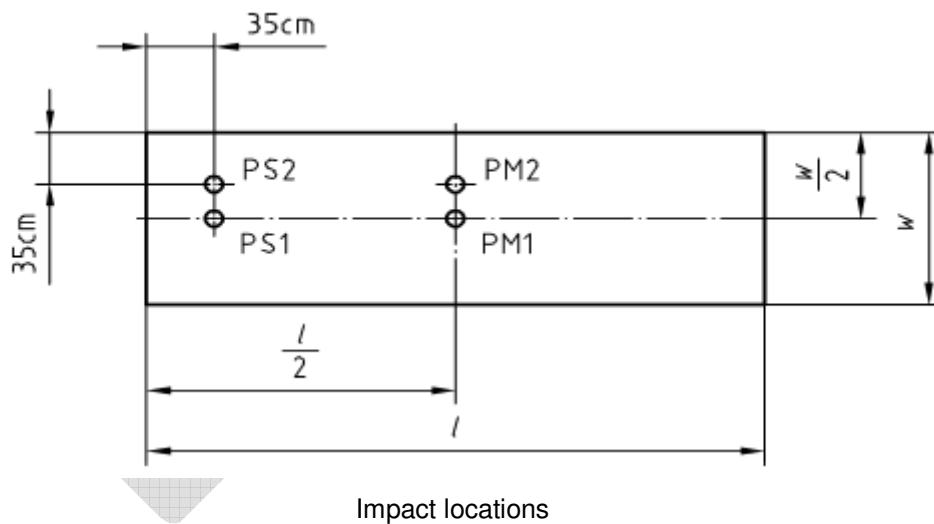
### 1.2 Test procedure

#### Test arrangement

The steel plank units, their supports and the adjacent vertical components shall be set up in conformity with the instruction manual. Side protection components shall be set up on all four sides to prevent the ball from rolling off the platform.

#### Test procedure

Release the ball of 100kg from the specified height 2.5m to impact at the locations as shown in the following figure according to the client's requirement through a damping pillow. The ball's diameter is 500mm and the damping pillow's size is 500mm×500mm×250mm (Length × Width × Thickness). After release the ball, check the sample for any signs of damage and measure the maximum deflection, make sure whether the deck can retain the ball or not.



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgsgroup.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编:201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e sgs.china@sgs.com

# TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 6 of 7

### 1.3 Test result:

Sample No.	Test Location	Deflection after test(mm)	Visual check	Requirement	Conclusion		
1	PM1	7	The ball can be retained after test	For a successful test, the test assembly is still capable of carrying the static load of the steel ball. Local damage and permanent deformation are acceptable.	Pass		
	PS1	16	The ball can be retained after test		Pass		
	PM2	14	The ball can be retained after test		Pass		
	PS2	21	The ball can be retained after test		Pass		
2	PM1	9	The ball can be retained after test		For a successful test, the test assembly is still capable of carrying the static load of the steel ball. Local damage and permanent deformation are acceptable.	Pass	
	PS1	17	The ball can be retained after test			Pass	
	PM2	43	The ball can be retained after test			Pass	
	PS2	21	The ball can be retained after test			Pass	
3	PM1	11	The ball can be retained after test			For a successful test, the test assembly is still capable of carrying the static load of the steel ball. Local damage and permanent deformation are acceptable.	Pass
	PS1	21	The ball can be retained after test				Pass
	PM2	37	The ball can be retained after test				Pass
	PS2	26	The ball can be retained after test				Pass



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编:201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e sgs.china@sgs.com

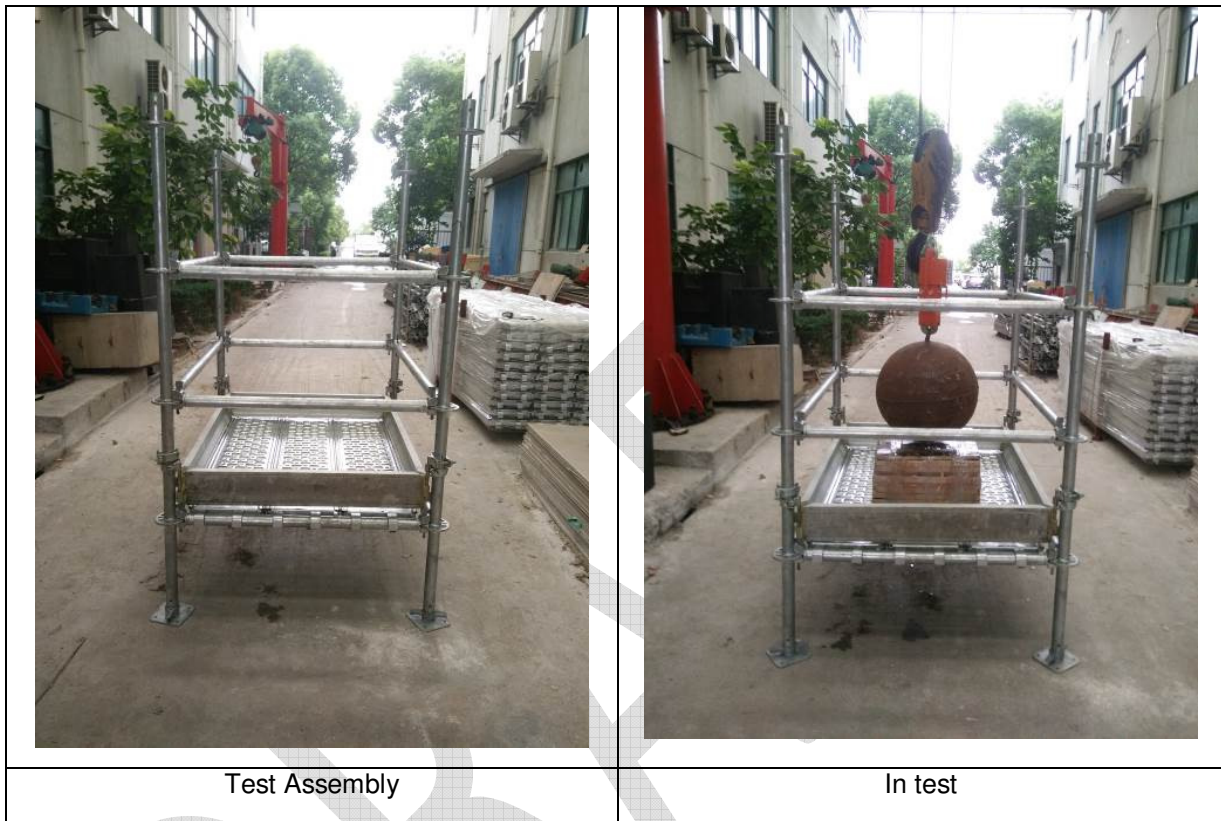
## TEST REPORT

No. : SHIN170903042CCM

Date : Sep. 26, 2017

Page: 7 of 7

Test photos:



Test Assembly

In test

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



SGS-CSTC Shanghai Technical Services (Shanghai) Co., Ltd.  
Testing Center Commercial Construction Material Laboratory

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

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](mailto:CN.Doccheck@sgs.com)

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 www.sgs.com.cn  
中国·上海·浦东康桥东路1159弄69号 邮编: 201319 t(86-21) 61196300 f(86-21) 61191853/68183920 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)