

## TEST REPORT

No. : SHCCM160100484

Date : Apr.10.2016

Page: 1 of 4

NANJING EK METALWORK CO., LTD

NO.23 YONGNING ROAD,LUHE DISTRICT, NANJING CITY, CHINA

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

Sample Name : PRESSED SLEEVE COUPLER  
Sample Number : SHCCM160100484  
Test Required : Please see the next page(s)  
Test Method : EN74-1:2005  
Product specification : 48.3\*48.3  
Date of Receipt : Mar.20,2016  
Test Period : Mar.20.2016 to Apr.10,2016  
Test result(s) : For further details, please refer to the following page(s)  
\*\*\*\*\*To be continued\*\*\*\*\*

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

Joyce Li

Joyce Li  
Authorized signatory



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.

SHCCM 011323

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

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. : SHCCM160100484

Date : Apr.10.2016

Page: 2 of 4

Test Conducted:

EN 74-1:2005 Couplers, spigot pins and baseplates for use in falsework and scaffolds – Part 1: Couplers for tubes – Requirements and test procedures

Test Results:

Test Clause	Test Item	Test Requirement (Sleeve coupler, Class B)	Test Result	Verdict
7.2.1	Slipping force	$1\text{mm} \leq \Delta_2 \leq 2\text{mm}$ , $F_{s,5\%} \geq 9.0\text{kN}$	$1\text{mm} \leq \Delta_2 \leq 2\text{mm}$ , $F_{s,5\%} = 14.6\text{kN}$	Pass
7.4.3	Bending moment resistance	$\Delta_4 = 5\text{mm}$ , $M_{b,5\%} \geq 1.4\text{kNm}$	$M_b = 2.8\text{kNm}$ , $\Delta_4 \leq 5\text{mm}$	Pass

Note:

1.  $F_{s,5\%}$ : the 5% quantile for the 75% level of confidence.
2. Please see Annex A for details of test results.

### Annex A Detail test results

#### 1. Slipping force

Sample No.	$F_s$ (kN, $1\text{mm} \leq \Delta_2 \leq 2\text{mm}$ )
1 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
2 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
3 <sup>#</sup>	16.03
4 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
5 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
6 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
7 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
8 <sup>#</sup>	$F_s = 18\text{kN}$ , $\Delta_2 \leq 1\text{mm}$
9 <sup>#</sup>	15.97
10 <sup>#</sup>	17.04
$F_{s,5\%}$	14.6

\*Note: In accordance with EN 74-1:2005, the test can be ended when the test load reached twice the specified  $F_s$  given in Table 8 of EN 74-1:2005. The result of  $F_{s,5\%}$  ( $1\text{mm} \leq \Delta_2 \leq 2\text{mm}$ ) is the statistical result of the other 3 specimens.

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



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.

SHCCM 011324

SGS Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center for Terminal Construction Material Laboratory

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. : SHCCM160100484

Date : Apr.10.2016

Page: 3 of 4

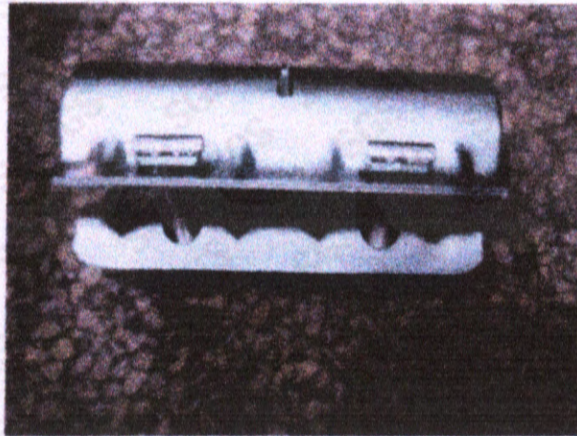
### 2. Bending moment resistance

Sample No.	$M_b$ (kNm, $\Delta_4=5\text{mm}$ )
11 <sup>#</sup>	$M_b=2.8\text{kNm}$ , $\Delta_4\leq 5\text{mm}$
12 <sup>#</sup>	$M_b=2.8\text{kNm}$ , $\Delta_4\leq 5\text{mm}$
13 <sup>#</sup>	$M_b=2.8\text{kNm}$ , $\Delta_4\leq 5\text{mm}$
14 <sup>#</sup>	$M_b=2.8\text{kNm}$ , $\Delta_4\leq 5\text{mm}$
15 <sup>#</sup>	$M_b=2.8\text{kNm}$ , $\Delta_4\leq 5\text{mm}$
$M_{b,5\%}$	-

\*Note: In accordance with EN 74-1:2005, the test can be ended when the test load reaches a value for the moment which is twice the specified value  $M_b$  given in Table 8 of EN 74-1:2005.

Sample photos:

Before test



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



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.

**SHCCM 011325**

SGS Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center for Thermal Construction Material Laboratory

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

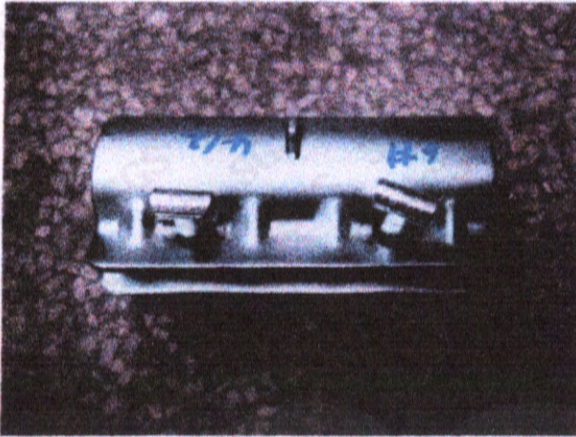
## TEST REPORT

No. : SHCCM160100484

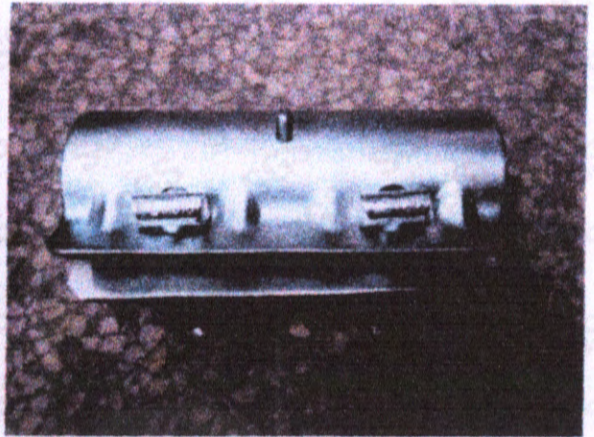
Date : Apr.10.2016

Page: 4 of 4

After test



Slipping force



Bending moment resistance

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

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



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-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.

**SHCCM 011322**

SGS-CTC Standards Technical Services (Shanghai) Co., Ltd.  
Testing Center for Terminal Construction Material Laboratory

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