TEST REPORT

No. : SHIN2007040543CM
Date : Jul 23, 2020

scan to see the report

SHIN2007040543CM

CUSTOMER NAME: NANJING TUOPENG CONSTRUCTION TECHNOLOGY CO., LTD.
ADDRESS: NO.21, CHENLV ROAD, XIONGZHOU STREET, LUHE DISTRICT, NANJING, JIANGSU, CHINA

Sample Name	:	DROP FORGED DOUBLE COUPLER
Product Specification	:	48.3 x 48.3mm
Material and Mark	:	Q235

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	:	Please see the next page(s)
Ref. Standard	:	Please see the next page(s)
Date of Receipt	:	Jul 07, 2020
Testing Start Date	:	Jul 07, 2020
Testing End Date	:	Jul 23, 2020
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 Service (Shanghai)Co., Ltd.

Tiffany Liu
Authorized signatory

TEST REPORT

No. : SHIN2007040543CM
Date : Jul 23, 2020

Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Slipping force	EN 74-1:2005 clause 7.2.1	See result	Pass
2	Failure force	EN 74-1:2005 clause 7.2.2	See result	Pass
3	Pull-apart force	EN 74-1:2005 clause 7.3	See result	Pass
4	Rotational moment and the stiffness	EN 74-1:2005 clause 7.4.2	See result	Pass
5	Indentation	EN 74-1:2005 clause 7.5	See result	Pass

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

Original Sample Photos:

View 1

View 2

SHCCM 023307
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

SGS

TEST REPORT

Test Item: Slipping force, Failure force, Pull-apart force, Rotational moment and the stiffness and Indentation

Test Method: EN 74-1:2005

Sample Description: See photos

Test Condition:

Specimen: Right angle coupler, Class B, 30pcs

Test Results:

Test Clause	Test Item	Test Requirement (Right angle coupler, Class B)	Test Result	Conclusion
7.2.1	Slipping force	$\triangle_1 \leq 7mm$, $F_{s,5\%} \geq 10.0kN$	$\triangle_1 = 7mm$, $F_{s,5\%} = 17.5kN$	Pass
		$1mm \leq \triangle_2 \leq 2mm$, $F_{s,5\%} \geq 15.0kN$	$1mm \leq \triangle_2 \leq 2mm$, $F_{s,5\%} = 17.0kN$	
7.2.2	Failure force	$F_{f,5\%}/\gamma R2 \geq 30.0kN$	$F_{f,5\%}/\gamma R2 = 50.6kN$	Pass
7.3	Pull-apart force	$F_{p,5\%}/\gamma R2 \geq 30.0kN$	$F_{p,5\%}/\gamma R2 = 48.7kN$	Pass
7.4.2	Rotational moment and the stiffness	$M_T = \pm 0.13kNm$, $C_\varphi \geq 7.5kNm/rad$	$M_T = \pm 0.13kNm$, $C_\varphi = 51.5kNm/rad$	Pass
		$1° \leq \theta \leq 2°$, $M_{T,5\%} \geq 0.13kNm$	$1° \leq \theta \leq 2°$, $M_{T,5\%} = 0.28kNm$	
7.5	Indentation	$F = 10kN$, $\triangle_{10} \leq 1.5mm$	$F = 10kN$, $\triangle_{10} < 1.5mm$	Pass

Note:

1. $F_{s,5\%}$, $F_{f,5\%}$, $F_{p,5\%}$, $M_{T,5\%}$: the 5% quantile for the 75% level of confidence.
2. $\gamma R2 = 1.25$ according to EN 74-1.
3. Specification of tube for slipping force, rotational moment and the stiffness: Steel tube of Φ48.3mmx3.2mm (wall thickness).
   Specification of steel bar for failure force and pull-apart force: steel bar of Φ48.3mm.
   Specification of tube for indentation: Steel tube of Φ48.3mmx2.8mm (wall thickness).
4. Please see Annex A for details of test results.

TEST REPORT

No. : SHIN2007040543CM
Date : Jul 23, 2020

Annex A Details of test results

1. Slipping force

Sample No.	F_s (kN, $\triangle_1$=7mm)	F_s (kN, 1mm≤$\triangle_2$≤2mm)
1	20.67	20.43
2	22.42	22.42
3	21.43	21.17
4	17.97	17.63
5	20.39	20.37
6	20.39	20.29
7	22.58	22.36
8	18.37	17.66
9	20.11	20.17
10	20.44	19.93
$F_{s,5\%}$	17.5	17.0

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 $F_{s,5\%}$ is the statistical result of the other 7 specimens.

2. Failure force

Sample No.	F_f (kN)
11	65.03
12	66.82
13	69.57
14	68.64
15	67.21
$F_{f,5\%}/\gamma R2$	50.6

TEST REPORT

No. : SHIN2007040543CM
Date : Jul 23, 2020

3. Pull-apart force

Sample No.	F_P (kN)
16	63.41
17	61.68
18	63.33
19	62.59
20	62.17
$F_{p,5\%}/\gamma R2$	48.7

4. Rotational moment and the stiffness

Sample No.	C_φ(kNm/rad, M_T=±0.13kNm)	M_T (kNm, 1°≤θ≤2°)
21	51.42	0.38
22	53.26	0.41
23	56.00	0.36
24	44.58	0.32
25	54.12	0.45
-	C_φ=51.5	$M_{T,5\%}$=0.28

5. Indentation

Sample No.	$\triangle_{10}$ (mm, F=10kN)
26	0.21
27	0.33
28	0.17
29	0.15
30	0.16

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

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