



Tensile Test of Polyester Belt

Project: Signode

Client: Eastern Industrial

Office: Chemicals & Power Korea

Client's Order Number:

Date: 01 June 2009

Order Status: Complete

Inspection Dates

First: 01 June 2009

Final: 01 June 2009

This certificate is issued to the Messers., Eastern Industrial., Seoul, Korea to certify that the undersigned Surveyor did attend on the above date at Icheon Works for the purpose of witnessing Tensile tests of undermentioned Polyester Belt.

Description:

- 1) Belt: Polyester Belt (TEX40, 40mm width)
- 2) Buckle: Forged Square Buckle (CFOWB4040, BS4000kgf, BN1335)

Test Results:

1) Tensile test, belt only

Item	Specified breaking strength	Measured breaking strength
TEX40 (40mm)	5,000kgf	5,430kgf

2) Tensile test, in combination with buckle

Item	Specified breaking strength	Measured breaking strength
TEX40 (40mm)+CFOWB4040	8,000kgf	8,250kgf

The tests were performed in the test room at 21 °C and tensile test equipment has been calibrated on 30 March 2009 by the accredited laboratory. It was found that the buckle was not broken and/or deformed during test.

J. J. Oh
Surveyor to Lloyd's Register Asia

A member of the Lloyd's Register Group



Project: **Tensile Test of Polyester Belt**

Client: **Eastern Industrial**

Office: **Chemicals & Power Korea**

Client's Order Number:

Date: **19 December 2008**

Order Status: **Complete**

Inspection Dates

First: **18 December 2008**

Final: **18 December 2008**

This certificate is issued to **Eastern Industrial** to certify that the undersigned surveyor did attend at Icheon factory, Korea on 18 December 2008 for the purpose of witness tensile test of undermentioned item.

Description

- 1) Belt : Polyester Belt (TEX -50K, 50mm)
- 2) Buckle : Forged Square Buckle (CFOWB5050)

Detail test results are found as follows ;

1) Tensile test belt only

Item	Specified breaking strength	Measured breaking strength
TEX-50K (50mm)	6,500 Kgf	7,650 Kgf

2) Tensile test in combination with buckle

Item	Specified breaking strength	Measured breaking strength
TEX-50K(50mm)+CFOWB5050	10,000 Kgf	10,570 Kgf

The test were performed in the test room at 3 °C and tensile test equipment has been calibrated on 14th March 2008 by an accredited laboratory. It was found that Buckle was not broken at the above load.


Ik-No Lee
Surveyor to Lloyd's Register Asia

A member of the Lloyd's Register Group



Inspection Certificate

Project: **Signode**

Client: **Signode K.K**
1-2-4, Minatojima-Nakamachi, Chuo-Ku, Kobe,
650-0046, Japan

Office: **Energy Korea**

Client's Order Number: -

Date: **05 January 2016**

Order Status: **Complete**

Inspection Dates

First: **05 January 2016**

Final: **05 January 2016**

This certificate is issued to **the Messers, Signode K.K, Kobe, Japan to certify that the undersigned Surveyor did attend at Eastern Ind, Corp, Emseoung, Korea on the above date for the purpose of witnessing Breaking Test on the undemoted item**

Item Type:

- 1) **Ployester Belt (TEX500, 50mm x 5ton)**
- 2) **Forged Square Buckle (40Cr/CF OWB5050-3G/B-strength min 10 ton/ BN1410)**

Test Result:

- 1) **Tensile test, Belt only**
 - a. **Specified Breaking strength: 5 tonf**
 - b. **Measured Breaking strength: avg 6.196 tonf**
- 2) **Tensile test, in combination with Buckle**
 - a. **Specified Breaking strength: 8 tonf**
 - b. **Measured Breaking strength: avg 10.122 tonf**

Testing of production sample was witnessed by the undersigned surveyor according to manufacturer standard requirements for breaking test. It was verified that the test equipment have been calibrated at 20 March 2015 by an accredited Laboratory.



Hong-Don Kim
Surveyor to Lloyd's Register Asia

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Breaking Strength Test of Ratchet Buckle

Project: Breaking Strength Test of 50mm Ratchet Buckle

Client: Signode K. K.
1-2-4, Minatojima-Nakamachi, Chuo-Ku, Kobe, 650-0046,
Japan

Office: Energy Korea

Client's Order Number:

Date: 20 May 2014

Order Status: Complete

Inspection Dates

First: 20 May 2014

Final: 20 May 2014

This certificate is issued to the Messrs., Signode K. K., Kobe, Japan to certify that the undersigned Surveyor did attend at Eastern Ind. Corporation, Eumseong, Korea Works on the above date for the purpose of witnessing Breaking strength tests of 50mm Ratchet Buckles.

Description:

50 mm 2 Bolts Ratchet Buckle (W-Ratchet)
Ratchet Buckle Model: RB50601DB
Breaking Strength: Min 6,000kg
Overall length: 230mm
Webbing Belt Model: TEX72 (BSW72-YE)
Webbing Belt Width: 50mm
Webbing Belt Breaking Strength: Min 8,800kg

Test Results:

The test specimens were provided by Eastern Industrial Corporation, Seoul, Korea and tested at their laboratory in Eumseong, Korea.

The ratchet buckles were tested by the horizontal tensile test machine in conjunction with yellow coloured polyester 50 mm lashing webbing belts.

Breaking strength tests for two 50mm Ratchet Buckles were witnessed.

Breaking strength: 159.3 & 160.3 kN

The buckles were deformed when belts torn.

The tensile test equipment was calibrated on 31 March 2014 by the accredited laboratory.

J. J. Oh
Surveyor to Lloyd's Register Asia

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