

Tien Tai Electrode (Kunshan) Electrode Co. Ltd. NO.189 HUAYUAN RD. ZHANGPU TOWN KUNSHAN CITY, JIANGSU, 215321 CHINA

## Re: Document(s) of Certification for Arc Welding Electrodes

Following completion of the requirements of the standard, we take pleasure in enclosing Document of Certification for your electrode(s) as follows:

Flux/Gas	Classification	POM
100%CO <sub>2</sub>	E308LT1-1	Kunshan, China
100%CO <sub>2</sub>	E308LT1-1	Kunshan, China
Ar + 20%CO <sub>2</sub> TO 100%CO <sub>2</sub>	E309LT1-1 E309LT1-4	Kunshan, China
Ar + 20%CO <sub>2</sub> TO 100%CO <sub>2</sub>	E309LT1-1 E309LT1-4	Kunshan, China
Ar + 20%CO <sub>2</sub> TO 100%CO <sub>2</sub>	E316LT1-1 E316LT1-4	Kunshan, China
Ar + 20%CO <sub>2</sub> TO 100%CO <sub>2</sub>	E316LT1-1 E316LT1-4	Kunshan, China
Ar + 20%CO <sub>2</sub>	E55C-Ni1-H4 (E80C-Ni1-H4)	Kunshan, China
-	ER309L	Kunshan, China
-	E5518-C1-H4	Kunshan, China
TF-565 (made in Taiwan)	F55A3-ENi1-Ni1-H4(F8A2-ENi1- Ni1-H4)	Kunshan, China
C1 (100%CO <sub>2</sub> )	E491T1-C1A4-CS1-H4 (E491T-9 -H4)	<sup>J</sup> Kunshan, China
100%CO <sub>2</sub>	E551T1-Ni1C-JH4 (E81T1-Ni1C-JH4)	Kunshan, China
	100%CO <sub>2</sub> 100%CO <sub>2</sub> Ar + 20%CO <sub>2</sub> TO 100%CO <sub>2</sub> TF-565 (made in Taiwan) C1 (100%CO <sub>2</sub> )	100%CO2 E308LT1-1  100%CO2 E308LT1-1  Ar + 20%CO2 TO 100%CO2 E309LT1-1 E309LT1-4  Ar + 20%CO2 TO 100%CO2 E309LT1-1 E309LT1-4  Ar + 20%CO2 TO 100%CO2 E316LT1-1 E316LT1-4  Ar + 20%CO2 TO 100%CO2 E316LT1-1 E316LT1-4  Ar + 20%CO2 TO 100%CO2 E316LT1-1 E316LT1-4  Ar + 20%CO2 TO 100%CO2 E55C-Ni1-H4 (E80C-Ni1-H4)  - ER309L  - E75518-C1-H4  TF-565 (made in Taiwan) F55A3-ENi1-Ni1-H4(F8A2-ENi1-Ni1-H4)  C1 (100%CO2) E491T1-C1A4-CS1-H4 (E491T-90-H4)  100%CO2 E551T1-Ni1C-JH4 (E81T1-Ni1C-











Tien Tai Electrode (Kunshan) Electrode Co. Ltd. NO.189 HUAYUAN RD. ZHANGPU TOWN KUNSHAN CITY, JIANGSU, 215321 CHINA

## Re: Document(s) of Certification for Arc Welding Electrodes

Following completion of the requirements of the standard, we take pleasure in enclosing Document of Certification for your electrode(s) as follows:

Please ensure that labels on these products conform to clause 8 of the CSA W48 Standard.

Thank you for your cooperation.

Yours very truly,

**CANADIAN WELDING BUREAU** 

Registrar











Date: April 02, 2019

HOBART BROTHERS COMPANY NO.189 HUAYUAN RD. ZHANGPU TOWN KUNSHAN CITY, JIANGSU, 215321 CHINA

# Re: Document(s) of Certification for Arc Welding Electrodes

Following completion of the requirements of the standard, we take pleasure in enclosing Document of Certification for your electrode(s) as follows:

Product	Flux/Gas	Classification	POM
FabCO 308L-T1	Ar + 20%CO <sub>2</sub> TO 25%CO <sub>2</sub>	E308LT1-4	Kunshan, China
FabCO 308L-T1	Ar + 20%CO <sub>2</sub> TO 25%CO <sub>2</sub>	E308LT1-4	Kunshan, China

Please ensure that labels on these products conform to clause 8 of the CSA W48 Standard.

Thank you for your cooperation.

Yours very truly,

CANADIAN WELDING BUREAU

Registrar











Date: May 30, 2019

TIEN TAI ELECTRODE (KUNSHAN) CO.LTD. NO.189 HUAYUAN RD. ZHANGPU TOWN KUNSHAN CITY, JIANGSU, 215321 **CHINA** 

# Re: Document(s) of Certification for Arc Welding Electrodes

Following completion of the requirements of the standard, we take pleasure in enclosing Document of Certification for your electrode(s) as follows:

**Product** Flux/Gas Classification POM TGS-316L ER316L Kunshan, China

Please ensure that labels on these products conform to clause 8 of the CSA W48 Standard.

Thank you for your cooperation.

Yours very truly,

CANADIAN WELDING BUREAU

Registrar





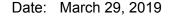






Fax: 905.542.1318

info@cwbgroup.org www.cwbgroup.org





## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation: FABCO 308L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E308LT1-1
Gas or Flux: 100%CO2

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO308L















## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation: FABCO 308L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E308LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 25%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2019

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO308L













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has satisfied itself on the following:

Company Name: HOBART BROTHERS COMPANY

Electrode Designation: FABCO 308L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E308LT1-1
Gas or Flux: 100%CO2

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO308LT1













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has satisfied itself on the following:

Company Name: HOBART BROTHERS COMPANY

Electrode Designation: FABCO 308L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E308LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 25%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2019

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO308LT1













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation: FABCO 309L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E309LT1-1 E309LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 100%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO309L













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has satisfied itself on the following:

**HOBART BROTHERS COMPANY** Company Name:

Electrode Designation: **FABCO 309L-T1** Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

E309LT1-1 Classification: E309LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 100%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

> Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO309LT1













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

TIEN TAI ELECTRODE (KUNSHAN) CO.LTD. Company Name:

Electrode Designation: **FABCO 316L-T1** Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

E316LT1-1 Classification: E316LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 100%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

> Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO316L













## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has satisfied itself on the following:

Company Name: HOBART BROTHERS COMPANY

Electrode Designation: FABCO 316L-T1
Point of Manufacture: Kunshan, China

Standard: W48-18 (FCAW Stainless Steel)

Classification: E316LT1-1 E316LT1-4

Gas or Flux: Ar + 20%CO<sub>2</sub> TO 100%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.2

Expiry date: March 21, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEFABCO316LT1













Effective Date: May 20, 2019

#### **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) ELECTRODE CO. LTD.

Electrode Designation: TEC-80NI1

Point of Manufacture: Kunshan, China

Standard: **A5.28/A5.28M:2005** 

Classification: E55C-Ni1-H4 (E80C-Ni1-H4)

Gas or Flux: Ar + 20%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.6

### Others Details:

In addition, the diffusible hydrogen tests was conducted in accordance with the latest ISO 3690 or AWS A4.3 and within the limits sets by the standard above.

Expiry date: **May 20, 2021** 

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

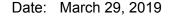
TIENTETEC80NI1













Effective Date: March 07, 2019

## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

TIEN TAI ELECTRODE (KUNSHAN) CO.LTD. Company Name:

Electrode Designation: **TGS-309L** 

Point of Manufacture: Kunshan, China

W48-18 (GMAW/GTAW Stainless Steel) Standard:

Classification: **ER309L** 

Gas or Flux:

Size (mm): Min: 1.2 Max: 3.2

> Expiry date: March 7, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTETGS309L











Effective Date: March 08, 2019

#### **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation: TN-28

Point of Manufacture: Kunshan, China

Standard: W48-18 (SMAW Low-Alloy Steel)

Classification: E5518-C1-H4

Gas or Flux:

Size (mm): Min: 3.2 Max: 4.0

### Others Details:

In addition, the diffusible hydrogen tests was conducted in accordance with the latest ISO 3690 or AWS A4.3 and within the limits sets by the standard above.

The impact properties was witnessed to testing at -60 degree C and the values met the requirements specified in the standard above.

Expiry date: March 8, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

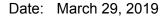
TIENTETN28













Effective Date: May 20, 2019

## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) ELECTRODE CO. LTD.

Electrode Designation: TSW--E31

Point of Manufacture: Kunshan, China

Standard: **A5.23/A5.23M:2011** 

Classification: F55A3-ENi1-Ni1-H4(F8A2-ENi1-Ni1-H4)

Gas or Flux: TF-565 (made in Taiwan)

Size (mm): Min: 2.4 Max: 5.0

The impact properties was witnessed to testing at -30 degree C and the values met the requirements specified in the standard above.

Expiry date: **May 20, 2021** 

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTEENI1TF565













Effective Date: May 20, 2019

## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following :

Company Name: TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation: TWE-711NI

Point of Manufacture: Kunshan, China

Standard: CSA W48-18 (FCAW/MCAW Carbon Steel)

Classification: E491T1-C1A4-CS1-H4 (E491T-9J-H4)

Gas or Flux: C1 (100%CO<sub>2</sub>)

Size (mm): Min: 1.2 Max: 1.2

### Others Details:

In addition, the diffusible hydrogen tests was conducted in accordance with the latest ISO 3690 or AWS A4.3 and within the limits sets by the standard above.

Expiry date: **May 20, 2021** 

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTETWE711Ni1











Effective Date: May 20, 2019

## **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name: TIEN TAI ELECTRODE (KUNSHAN) ELECTRODE CO. LTD.

Electrode Designation: TWE-811NI1

Point of Manufacture: Kunshan, China

Standard: **A5.29/A5.29M:2010** 

Classification: E551T1-Ni1C-JH4 (E81T1-Ni1C-JH4)

Gas or Flux: 100%CO<sub>2</sub>

Size (mm): Min: 1.2 Max: 1.6

### Others Details:

In addition, the diffusible hydrogen tests was conducted in accordance with the latest ISO 3690 or AWS A4.3 and within the limits sets by the standard above.

Expiry date: **May 20, 2021** 

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

CANADIAN WELDING BUREAU

Registrar

TIENTETEC811NI1











Date: May 30, 2019

Effective Date: May 16, 2019

# **CERTIFICATION OF WELDING CONSUMABLE**

This is to advise you the Canadian Welding Bureau has witnessed tests on the following:

Company Name:

TIEN TAI ELECTRODE (KUNSHAN) CO.LTD.

Electrode Designation:

**TGS-316L** 

Point of Manufacture:

Kunshan, China

Standard:

W48-18 (GMAW/GTAW Stainless Steel)

Classification:

**ER316L** 

Gas or Flux:

Size (mm):

Min: 1.2 Max: 3.2

Expiry date:

May 16, 2021

This certification, may be extended by meeting the check test requirements of the applicable standard and CWB rules.

**CANADIAN WELDING BUREAU** 

Registrar

TIENTETGS316L

The product certification system operated by the Canadian Welding Bureau most closely resembles that described by ISO/IEC Guide 67, Conformity assessment — Fundamentals of product certification, System 5.









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