



財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

(Certificate No : L0949-231103)

This is to certify that

Tung Ho Steel Enterprise Corporation

Kaohsiung Plant Testing Laboratory

NO.8, Jiaxing Street, Xiaogang District, Kaohsiung City 81257, Taiwan(R.O.C)

is accredited in respect of laboratory

Accreditation Criteria : ISO/IEC 17025:2017 ; CNS 17025:2018

Accreditation Number : 0949

Originally Accredited : November 01, 2002

Effective Period : November 11, 2023 to November 10, 2026

Accredited Scope : Testing Field, see described in the Appendix



Scan to verify

Ching-Chang Lien

Ching-Chang Lien
President, Taiwan Accreditation Foundation
November 03, 2023

Accreditation Number : 0949

Laboratory Head : WANG,Chia-Pin

01. 01 Metals and Alloys Products

Low Alloy Steel

C001 Elemental Analysis

1.CNS 10006

2.JIS G1253

3.ASTM E415

4.In-house method : Spectrometer Chemical Analysis Test Method Standard (Document No.: K2020414) Reference: CNS 10006, JIS G1253, ASTM E415 Custom Method:

1.

C : (0.04 to 0.75) %
Si: (0.05 to 0.60) %
Mn: (0.20 to 1.60) %
P : (0.004 to 0.070) %
S : (0.002 to 0.055) %
Cu: (0.03 to 0.50) %
Ni: (0.02 to 1.60) %
Cr: (0.06 to 0.60) %
Mo: (0.016 to 0.98) %
V : (0.001 to 0.10) %
Nb: (0.004 to 0.050) %
Sn: (0.002 to 0.045) %
Al: (0.002 to 0.05) %
Ti: (0.001 to 0.07) %
B : (0.0002 to 0.0065) %

2.

C : (0.04 to 0.75) %
Si: (0.05 to 0.60) %
Mn: (0.20 to 1.60) %
P : (0.004 to 0.070) %
S : (0.002 to 0.055) %
Cu: (0.03 to 0.50) %
Ni: (0.02 to 1.60) %
Cr: (0.06 to 0.60) %
Mo: (0.016 to 0.98) %
V : (0.001 to 0.10) %
Nb: (0.001 to 0.050) %
Sn: (0.002 to 0.045) %
Al: (0.002 to 0.05) %
Ti: (0.001 to 0.07) %
B : (0.0002 to 0.0065) %

3.

C : (0.04 to 0.75) %
Si: (0.05 to 0.60) %

P2, total 5 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



Mn:(0.20 to 1.60) %
 P :(0.006 to 0.070) %
 S :(0.002 to 0.055) %
 Cu:(0.03 to 0.50) %
 Ni:(0.02 to 1.60) %
 Cr:(0.06 to 0.60) %
 Mo:(0.016 to 0.98) %
 V :(0.003 to 0.10) %
 Nb:(0.003 to 0.050) %
 Sn:(0.005 to 0.045) %
 Al:(0.006 to 0.05) %
 Ti:(0.001 to 0.07) %
 B :(0.0004 to 0.0065) %
 4.

C :(0.04 to 0.75) %
 Si:(0.05 to 0.60) %
 Mn:(0.20 to 1.60) %
 P :(0.004 to 0.070) %
 S :(0.002 to 0.055) %
 Cu:(0.03 to 0.50) %
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 Al:(0.002 to 0.05) %
 Ti:(0.001 to 0.07) %
 B :(0.0002 to 0.0065) %

Approval Signatory:WANG,Chia-Pin; SU, Chin-Chou

01. 01 Metals and Alloys Products

Carbon Steel

C001 Elemental Analysis

1.CNS 10006

2.JIS G1253

3.ASTM E415

4.In-house method : Spectrometer Chemical Analysis Test Method Standard (Document No.: K2020414) Reference: CNS 10006, JIS G1253, ASTM E415 Custom Method:

1.

C :(0.04 to 0.75) %
 Si:(0.05 to 0.60) %
 Mn:(0.20 to 1.60) %
 P :(0.004 to 0.070) %
 S :(0.002 to 0.055) %
 Cu:(0.03 to 0.50) %
 Ni:(0.02 to 1.60) %
 Cr:(0.06 to 0.60) %

P3, total 5 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix



Mo:(0.016 to 0.98) %
V :(0.001 to 0.10) %
Nb:(0.004 to 0.050) %
Sn:(0.002 to 0.045) %
Al:(0.002 to 0.05) %
Ti:(0.001 to 0.07) %
B :(0.0002 to 0.0065) %

2.

C :(0.04 to 0.75) %
Si:(0.05 to 0.60) %
Mn:(0.20 to 1.60) %
P :(0.004 to 0.070) %
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Sn:(0.002 to 0.045) %
Al:(0.002 to 0.05) %
Ti:(0.001 to 0.07) %
B :(0.0002 to 0.0065) %

3.

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Si:(0.05 to 0.60) %
Mn:(0.20 to 1.60) %
P :(0.006 to 0.070) %
S :(0.002 to 0.055) %
Cu:(0.03 to 0.50) %
Ni:(0.02 to 1.60) %
Cr:(0.06 to 0.60) %
Mo:(0.016 to 0.98) %
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Nb:(0.003 to 0.050) %
Sn:(0.005 to 0.045) %
Al:(0.006 to 0.05) %
Ti:(0.001 to 0.07) %
B :(0.0004 to 0.0065) %

4.

C :(0.04 to 0.75) %
Si:(0.05 to 0.60) %
Mn:(0.20 to 1.60) %
P :(0.004 to 0.070) %
S :(0.002 to 0.055) %
Cu:(0.03 to 0.50) %
Ni:(0.02 to 1.60) %
Cr:(0.06 to 0.60) %
Mo:(0.016 to 0.98) %
V :(0.001 to 0.10) %

P4, total 5 pages

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Nb:(0.001 to 0.050) %
Sn:(0.002 to 0.045) %
Al:(0.002 to 0.05) %
Ti:(0.001 to 0.07) %
B :(0.0002 to 0.0065) %

Approval Signatory:WANG,Chia-Pin; SU, Chin-Chou

01. 01 Metals and Alloys Products

Medium/Low Carbon Steel

M002 Tension

CNS 2111

ASTM E8/E8M

JIS Z2241

AS 1391

BS EN ISO 6892-1

(20 to 1000) kN

Approval Signatory:WANG,Chia-Pin; SU, Chin-Chou

M005 Bend (Winding Bend Method)

CNS 3941

ASTM A370

JIS Z2248

Thickness of Plate : (6 to 21) mm

Approval Signatory:WANG,Chia-Pin; SU, Chin-Chou

01. 01 Metals and Alloys Products

Metals Products

M004 Charpy Impact

JIS Z2242

AS 1544.2

CNS 3034

BS EN ISO 148-1

Absorbed Energy

1. -40 °C to room Temperature

2. maximum : 200J

3. Radius of curvature of edge:2 mm

Approval Signatory:WANG,Chia-Pin; SU, Chin-Chou

(Null below)

