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

Certification Accreditation

(Certificate No：L0130-221014)

This is to certify that

China Steel Corporation

Chemical Laboratory

1 Chung-Kang Road,Siaogang District, Kaohsiung 81233, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	：	ISO/IEC 17025:2017；CNS 17025:2018
Accreditation Number	：	0130
Originally Accredited	：	October 30, 1993
Effective Period	：	October 30, 2022 to October 29, 2025
Accredited Scope	：	Testing Field, see described in the Appendix

Scan to verify

Ching-Chang Lien

Ching-Chang Lien
President, Taiwan Accreditation Foundation
October 14, 2022

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

Accreditation Number ：0130
Laboratory Head ：HSIAO, Ming-Chang

◤ 01. 01 Metals and Alloys Products
Stainless Steel
C001 Elemental Analysis
ASTM E1086
C: (0.010 to 0.250) %
Si: (0.020 to 0.900) %
Mn: (0.050 to 2.00) %
P: (0.005 to 0.070) %
S: (0.003 to 0.040) %
Cu: (0.010 to 0.30) %
Ni: (7.50 to 13.00) %
Cr: (17.0 to 23.0) %
Mo: (0.010 to 3.0) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001 Elemental Analysis
CNS 10006
JIS G1253
C: (0.010 to 1.000) %
Si: (0.020 to 1.70) %
Mn: (0.050 to 9.10) %
P: (0.005 to 0.070) %
S: (0.001 to 0.040) %
Cu: (0.010 to 3.70) %
Ni: (0.180 to 21.00) %
Cr: (9.10 to 25.40) %
Mo: (0.010 to 3.55) %
V: (0.010 to 0.400) %
Nb: (0.020 to 1.50) %
Ti: (0.005 to 2.00) %
Al: (0.003 to 0.100) %
Sn: (0.003 to 0.100) %
B: (0.0005 to 0.0080) %
W: (0.020 to 0.950) %
Co: (0.010 to 0.950) %
Pb: (0.001 to 0.017) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

◤ 01. 01　Metals and Alloys Products
Carbon Steel、Low Alloy Steel
C001　Elemental Analysis
ASTM E415
C: (0.020 to 1.100) %
Si: (0.020 to 1.54) %
Mn: (0.050 to 2.00) %
P: (0.006 to 0.085) %
S: (0.001 to 0.040) %
Cu: (0.006 to 0.500) %
Ni: (0.006 to 5.00) %
Cr: (0.007 to 4.10) %
Mo: (0.007 to 1.250) %
V: (0.003 to 0.300) %
Nb: (0.003 to 0.120) %
Ti: (0.001 to 0.200) %
Al: (0.006 to 0.093) %
Sn: (0.005 to 0.061) %
B: (0.0004 to 0.007) %
Ca: (0.0003 to 0.0030) %
Co: (0.006 to 0.200) %
Pb: (0.002 to 0.200) %
Sb: (0.006 to 0.027) %
As: (0.003 to 0.100) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001　Elemental Analysis
CNS 10006
JIS G1253
C: (0.010 to 1.300) %
Si: (0.010 to 3.10) %
Mn: (0.050 to 2.20) %
P: (0.002 to 0.120) %
S: (0.001 to 0.040) %
Cu: (0.002 to 1.000) %
Ni: (0.003 to 5.40) %
Cr: (0.003 to 4.10) %
Mo: (0.002 to 1.250) %
V: (0.001 to 0.850) %
Nb: (0.004 to 0.500) %
Ti: (0.001 to 0.300) %
Al: (0.002 to 0.620) %
Sn: (0.001 to 0.110) %
B: (0.0002 to 0.012) %
Ca: (0.0003 to 0.0050) %
Co: (0.003 to 0.500) %
Pb: (0.001 to 0.200) %

Sb: (0.010 to 0.090) %
As: (0.002 to 0.110) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

◤ 01. 01 Metals and Alloys Products
Carbon Steel、Low Alloy Steel、Stainless Steel
C001 Elemental Analysis
ASTM E1019
O: (0.001 to 0.005) %
N: (0.001 to 0.200) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001 Elemental Analysis
ASTM E1019
S: (0.002 to 0.350) %
C: (0.005 to 2.00) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001 Elemental Analysis
CNS 11069
JIS G1211-3
C: (0.001 to 2.00) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001 Elemental Analysis
JIS G1215-4
S: (0.0005 to 0.400) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

C001 Elemental Analysis
JIS G1228
N: (0.0009 to 0.050) %

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

◤ 01. 01　Metals and Alloys Products
Zinc Coating Layer
C001　Elemental Analysis
In-House Method: Determination of zinc , iron, and aluminum content in coating layer of zinc-coated steel sheet and strip by ICP atomic emission spectrometric method
Doc. No.: GB-T435-N81
Zn: (10 to 1000) g/m^2
Fe: (0.2 to 15) g/m^2
Al: (0.05 to 10) g/m^2

Approval Signatory:LIEN, Shih-Hsun; KUO, Yu-Hsien; CHEN, Chih-Jung; CHENG, Chien-Chung; HSIAO, Ming-Chang

◤ 01. 01　Metals and Alloys Products
Zinc Coating Steel
C055　Coating Weight
JIS G3302 Annex JC
CNS 1244 Appendix C
JIS G3313 Appendix JD

Approval Signatory:KAO, Chi-Chan; CHANG, Yu-Ming; HSIAO, Ming-Chang; CHUNG, Yung-Hsin

M010　Coating Weight
CNS 1247 Sec. 5.2
JIS H0401 Sec. 5.2
ASTM A90/A90M
JIS G3313 Appendix JF
JIS G3302 Appendix JE

Approval Signatory:LIEN, Shih-Hsun; KUO, Yu-Hsien; CHEN, Chih-Jung; CHENG, Chien-Chung; HSIAO, Ming-Chang

◤ 03. 01　Cements, Clays, Ceramics and Related Materials
Refractory
M020　Permanent Linear Change
JIS R2554
(-10.00 to 10.00) %
Specimen Size L×W×T：(160×40×40) mm

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

M023 Modulus of Rupture
JIS R2553
(1 to 50) kN
Specimen Size L×W×T：(160×40×40) mm

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

M028 Specific Gravity
JIS R2205
(0.90 to 6.00)
Castable Refractory Specimen Size L×W×T：(160×40×40) mm

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

M069 Apparent Porosity
JIS R2205
(1.0 to 60.0) %
Castable Refractory Specimen Size L×W×T：(160×40×40) mm

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

M070 Cold Compressive Strength
JIS R2206-2
(5 to 500) KN

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

M070 Cold Compressive Strength
JIS R2553
(5 to 500) kN
Specimen Size L×W×T：(160×40×40) mm

Approval Signatory:CHIANG, Chia-Chun; YEH, Chang-Sheng; TSAI, Meng-Hsun; CHENG, Chien-Chung; HSIAO, Ming-Chang

(Null below)