



Certificate No : MD00/0414/0014/1

Appendix 1

DONGKUK STEEL MILL Co. Ltd.

Pohang Works

195, Cheolgangsandan-ro,
Daesong-myeon, Nam-gu,
Pohang-si, Gyeongsangbuk-do
Korea

Steelmaking	E.A.F. / Con Cast	Grades	
		carbon-manganese	
Semi-Finished Products	Blooms/Billets	Grades	mm thickness Maximum
		carbon-manganese	480.0
Plates	Normal Strength	Grades	mm thickness Maximum
As Rolled	Fine Grain Al	D	35.0
As Rolled	Fine Grain Al	A, B	83.0
As Rolled	Killed	A	50.0
Normalizing Rolled	Fine Grain Al	A, B, D	50.0
Thermo Mechanical	Fine Grain Al+Nb+Ti	A, B, D, E	50.0
Thermo Mechanical	Fine Grain Al	A, B, D	50.0
Plates	Higher Strength	Grades	mm thickness Maximum
As Rolled	Fine Grain Al+Ti	DH27S, DH32, DH36	25.0
As Rolled	Fine Grain Al+Ti	AH27S, AH32, AH36	35.0
As Rolled	Fine Grain Al	DH27S, DH32	25.0
As Rolled	Fine Grain Al	AH27S, AH32	35.0
Normalizing Rolled	Fine Grain Al+Nb+V+Ti	AH32, AH36, DH32, DH36	35.0
Normalizing Rolled	Fine Grain Al	AH27S, AH32, DH27S, DH32	25.0
Thermo Mechanical	Fine Grain Al+Ti	DH27S, DH32, DH36	25.0
Thermo Mechanical	Fine Grain Al+Ti	AH27S, AH32, AH36	35.0
Thermo Mechanical	Fine Grain Al+Nb+Ti	AH27S, AH32, AH36, DH27S, DH32, DH36, EH27S, EH32, EH36, FH27S, FH32, FH36	50.0
Thermo Mechanical	Fine Grain Al+V+Ti	DH27S, DH32, DH36	25.0
Thermo Mechanical	Fine Grain Al+V+Ti	AH27S, AH32, AH36	35.0

Valid Until : 13 May 2019
Date of Issue : 19 August 2016

Gavin Young

Metallurgical Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group



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Appendix 2

DONGKUK STEEL MILL Co. Ltd.

Pohang Works

195, Cheolgangsandan-ro,
Daesong-myeon, Nam-gu,
Pohang-si, Gyeongsangbuk-do
Korea

Plates	Boiler & Pressure Vessel	Grades	mm thickness Maximum
As Rolled	Killed	360AR, 410AR	40.0
Normalizing Rolled	Fine Grain Al+Nb+V+Ti	360FG, 410FG, 460FG, 490FG, 510FG	35.0
Normalizing Rolled	Fine Grain Al	460FG, 490FG	25.0
Normalizing Rolled	Fine Grain Al	360FG, 410FG	50.0
Plates	Ferritic Low Temperature	Grades	mm thickness Maximum
Thermo Mechanical	Fine Grain Al+Nb+Ti	LTAH27S, LTAH32, LTAH36, LTDH27S, LTDH32, LTDH36, LTEH27S, LTEH32, LTEH36, LTFH27S, LTFH32, LTFH36	50.0
Sections	Normal Strength	Grades	mm thickness Maximum
As Rolled	Killed	D	25.0
As Rolled	Killed	A, B	32.0
Sections	Higher Strength	Grades	mm thickness Maximum
As Rolled	Fine Grain Al+V	AH27S, DH32	25.0
As Rolled	Fine Grain Al+V	AH32, DH27S	32.0

Steel type carbon-manganese covers the supply of blooms, billets and beam-blanks for re-rolling into normal strength, high strength and ferritic steels for low temperature service according to the Society's Rules for the Manufacture, Testing and Certification of Materials, Chapter 3. The final rolling mill are responsible for ordering steel which complies with their approved chemical composition and enables them to achieve the required mechanical properties

Billets to 150 x 150mm, Blooms to 200 x 250 & 250 x 300, Beam Blanks to 400 x 480 x 120mm.

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Pohang Works
195, Cheolgangsandan-ro,
Daesong-myeon, Nam-gu,
Pohang-si, Gyeongsangbuk-do
Korea

has been approved as a manufacturer in accordance with the requirements of Lloyd's Register for :-

Steelmaking, Semi-Finished Products, Plates and Sections

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes and grades to which this approval applies are given in the Appendix of this certificate.

Lloyd's Register is to be notified of any change that may affect the validity of this Certificate.

This Certificate is issued to the above manufacturer and is valid until the date given below.

Valid Until : 13 May 2019
Date of Issue : 19 August 2016

A handwritten signature in blue ink, appearing to read 'G. Young', written over a horizontal line.

Gavin Young
Metallurgical Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group