



Certificate No : MD00/1824/0009/1

THYSSENKRUPP STEEL EUROPE AG
Works Bruckhausen
Kaiser-Wilhelm-Straße 100
D-47166 Duisburg
Germany

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

Steelmaking and Hot Rolled Coil

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 : 23 August 2020
Date of Issue : 30 August 2017

A blue ink handwritten signature, appearing to read 'Lili Hou', is written over a horizontal line.

Lili Hou
Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group



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Appendix 1

THYSSENKRUPP STEEL EUROPE AG
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Steelmaking	B.O.S. / Con Cast	Grades	
Hot Rolled Coil	Normal Strength	Grades	mm thickness Maximum
Normalizing Rolled	Fine Grain Al	As below	20.0
As Rolled and Hot Coiled	Fine Grain Al	A, B, D, E	20.0
Hot Rolled Coil	Higher Strength	Grades	mm thickness Maximum
Normalizing Rolled	Fine Grain Al	AH27S, AH32, AH36, DH27S, DH32, DH36	20.0
As Rolled and Hot Coiled	Fine Grain Al	AH27S, AH32, AH36, DH27S, DH32, DH36	20.0
Hot Rolled Coil	Boiler & Pressure Vessel	Grades	mm thickness Maximum
Hot Coiled	Fine Grain Al	360FG, 410FG, 460FG, 490FG, 510FG	20.0
Hot Coiled	Killed	360, 410	20.0

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Lili Hou
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