

Approved Manufacturer of Steel Plates, Strip, Sections & Bars

Manufacturer	ThyssenKrupp Steel Europe AG
Address	Works Duisburg-Süd, Kaiser-Wilhelm-Straße 100, 47166 Duisburg, Germany
Type	Plates
Scope of Approval	Also approved for 'Plates from Coil' as below:

Plates from coils	Normal Strength	Grades	mm thickness Maximum
AsRolled	FineGrain Al	A, B, D, E	20.0
NormalizingRolled	Fine Grain Al	A, B, D, E	20.0
Plates from coils	Higher Strength	Grades	mm thickness Maximum
AsRolled	Fine Grain Al	AH27S,DH27S, AH32, DH32, AH36, DH36	20.0
Normalized	Fine Grain Al	EH27S, EH32, EH36	20.0
NormalizingRolled	Fine Grain Al	AH27S, DH27S, AH32, DH32, AH36, DH36	20.0
Plates from coils	Boiler and Pressure Vessel	Grades	mm thickness Maximum
NormalizingRolled	Fine Grain Al	360 FG, 460 FG, 410 FG, 490FG,510FG	20.0
Normalizing Rolled	Killed	360, 410	20.0

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 on subsequent pages of this certificate.



71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Li Xu

Senior Specialist- Fracture Mechanics and
Fatigue Analysis to Lloyd's Register EMEA
A member of the Lloyd's Register group

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This certificate is issued to the named manufacturer, and is valid until the expiry date specified. Lloyd's Register is to be notified of any change that may affect the validity of this certificate, and reserves the right to cancel or withdraw this certificate.

Approval Notes

Specified through thickness properties on all normal and higher strength steel grade plates.

Duplex stainless steel grade UNS S31803 minimum PREN 34

For 9Ni the allowable maximum welding heat input is 2.5 kJ/mm

The specified maximum thicknesses must be adhered to one decimal place



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Plates	Ferritic Low Temperature	Grades	Maximum Thickness	Units
Quenched and Tempered	-	9Ni	50.00	mm
Quenched and Tempered	Fine Grain Al	5Ni	50.00	mm
Normalized	Fine Grain Al	LTAH27S	50.00	mm
Normalized	Fine Grain Al	LTDH27S	50.00	mm
Normalized	Fine Grain Al	LTEH27S	50.00	mm
Normalized	Fine Grain Al	LTFH27S	50.00	mm
Normalized	Fine Grain Al	LTFH36, LTEH36, LTDH36, LTAH36, LTFH32, LTEH32, LTDH32, LTAH32	50.00	mm

Plates	Boiler and Pressure Vessel	Grades	Maximum Thickness	Units
Normalizing Rolled	Fine Grain Al	410FG, 360FG	80.00	mm
Normalizing Rolled	Fine Grain Al	510FG, 490FG, 460FG	50.00	mm
Normalizing Rolled	Fine Grain Al+Nb+Ti	510FG, 490FG, 460FG, 410FG, 360FG	55.00	mm
Normalized	Killed	410, 360	100.00	mm
Normalized	Fine Grain Al	510FG, 490FG, 460FG, 410FG, 360FG	100.00	mm
As Rolled	Killed	410AR, 360AR	40.00	mm

Plates	Higher Strength	Grades	Maximum Thickness	Units
Thermo Mechanical	Fine Grain Al	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	31.00	mm



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Thermo Mechanical	Fine Grain Al+Nb+Ti	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	35.00	mm
TM+Acc	Fine Grain Al	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	70.00	mm
TM+Acc	Fine Grain Al+Nb+Ti	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	60.00	mm
TM+Acc	Fine Grain Al+Nb+Ti	EH40, DH40, AH40	60.00	mm
Normalizing Rolled	Fine Grain Al	DH36, AH36, DH32, AH32, DH27S, AH27S	50.00	mm
Normalizing Rolled	Fine Grain Al+Nb+Ti	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	55.00	mm
Normalized	Fine Grain Al	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	100.00	mm
Normalized	Fine Grain Al	FH36, FH32, FH27S	50.00	mm
As Rolled	Fine Grain Al	AH36, AH32, AH27S	35.00	mm
As Rolled	Fine Grain Al	DH36, DH32, DH27S	25.00	mm
Thermo Mechanical	Fine Grain Al+Nb+Ti	EH40, DH40, AH40	35.00	mm

Plates	Normal Strength	Grades	Maximum Thickness	Units
Normalizing Rolled	Fine Grain Al	D, B, A	80.00	mm
Normalized	Fine Grain Al	E, D, B, A	150.00	mm
As Rolled	Fine Grain Al	B, A	150.00	mm
As Rolled	Fine Grain Al	D	35.00	mm

Plates	Duplex Stainless	Grades	Maximum Thickness	Units
Solution Treated	-	UNS S31803	35.00	mm



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