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## Approved Manufacturer of Steel Plates, Strip, Sections & Bars

**Manufacturer**      **Salzgitter Mannesmann Grobblech GmbH**

**Address**                      Sandstrasse 140, D-45473 Mülheim an der Ruhr, Germany

**Type**                              Plates

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.

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**              Heat treatment of Duplex grade UNS S31803 steel plates rolled at Thyssen Stahl AG. Duisburg-Sud Works



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

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**Lili Hou**

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

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Plates	Normal Strength	Grades	Maximum Thickness	Units
As Rolled	Fine Grain Al	D, B, A	35.00	mm
As Rolled	Killed	B, A	50.00	mm
Normalized	Fine Grain Al	E, D, B, A	50.00	mm
Normalized	Killed	B, A	50.00	mm
Normalizing Rolled	Fine Grain Al+Nb	D, B, A	50.00	mm

Plates	Higher Strength	Grades	Maximum Thickness	Units
As Rolled	Fine Grain Al	DH36, DH32, DH27S	25.00	mm
Normalized	Fine Grain Al	EH36, DH36, AH36, EH32, DH32, AH32, EH27S, DH27S, AH27S	50.00	mm
As Rolled	Fine Grain Al	AH36, AH32, AH27S	35.00	mm

Plates	Boiler and Pressure Vessel	Grades	Maximum Thickness	Units
As Rolled	Killed	410AR, 360AR	40.00	mm
Normalized	Fine Grain Al	510FG, 490FG, 460FG, 410FG, 360FG	50.00	mm
Normalized	Killed	410, 360	50.00	mm

Plates	Austenitic Stainless	Grades	Maximum Thickness	Units
Solution Treated	-	316L	50.00	mm
Solution Treated	-	304L	50.00	mm



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