INSPECTION CERTIFICATE 3.1
ABNAHMEPRUFZEUGNIS 3.1

To EN 10204

COLUMBUS STAINLESS (Pty) Ltd
Columbus Stainless (Pty) Ltd P O Box 135 Middelburg 1050 South Africa
Tel +27 13 2474111 Fax +27 13 2474111
Website: http://www.columbus.co.za
A Subsidiary of ACERINOX S.A.

CE
Authorised Representative
Acerinox Europa S.A.U.
C. Santiago de Compostela no 100 28035 Madrid Spain
Tel +34 91 3108 [illegible]
Common Rebate or Steel for building construction or civil engineering
Regulated substances. Superfluous or determined

Nr. 2610414 - 1 1 / 1
Date 2013/12/27

MANUFACTURER'S MARK
Herstellerzeichen
MELTING PROCESS
E/AOD
Erschmelzungsart

CUSTOMER (Besteller)
BE GROUP OY
LOTILA KIRKKAATOVET 5-7/
VANHANRADANKATU 42
15522 LAHTI
Finland

ORDER (Unser Auftrag Nr.): EP16408
ITEM No. (Pos. Nr.): 008
CUSTOMER ORDER No. (Kundenbestellung): P014706
REQUIREMENTS (Anforderungen)
AD 2000 W2
AD 2000 W10
Certified by TUV Rheinland/Berlin-Brandenburg to European Directive 97/23/EC for Pressure Equipment Certificate no 01 202 ZA/O[illegible]

INSPECTION STAMP
299
Zeichen des Sachverständigen

PRODUCT (Erzeugnis): Warmgeformt, wärmebehandelt, gebeizt
1D: Hot rolled, heat treated, pickled

HEAT No. (Schmelz-Nr.): 393569
MPS No.*: 3935691/1/5/0

* The first six numbers are the heat number. The seventh character is the slab indicator and any further characters represent a part of the slab with common mechanical properties

SPECIFICATION (Norm)	MATERIAL CODE (Werkstoff)	
EN 10088-2 2005 HOT ROLLED PLATE	1.4307	1.4301
EN 10028-7 2007 HOT ROLLED PLATE	1.4307	1.4301
ASME 2013 SECTION II PART A SA240	304L	304
ASTM A240/A240M-13	304L	304
EN 10088-4 2009 HOT ROLLED PLATE	1.4307	1.4301

CASE (Kasten)
HCON94473
HCON94474
HCON94475
HCON94476
HCON94477
HCON94478
HCON94479

TOLERANCE: ISO 18286-08 H/R Plate-ASTMA480/A480M-ASMESA480/SA480M
Delivery Note Number: 37077

DIMENSIONS (Abmessung): 12 000 mm x 1500 mm x 3000 mm
KURZNAME: X5CRNI 18-10 X2CRNI 18 9
QUANTITY (Stückzahl): 21
MASS (Gewicht): 9002 kg

CHEMICAL ANALYSIS (Chemische Zusammensetzung)

%	REQUIREMENT MIN	REQUIREMENT MAX	ABLE (Schmelze)
C		0.030	0.027
S		0.015	0.004
P		0.045	0.023
Mn		2.00	1.15
Si		1.00	0.46
Ni	8.0	10.5	8.0
Cr	17.5	19.5	18.1
Mo			
Ti			
N		0.11	0.07
V			
Co			
Cu			
Nb			
Sn			
Al			
B			

HEAT TREATMENT (Wärmebehandlung / Solution Annealed)

Anneal °C	Quench
1050 - 1100	AIR/SPRAY

MECHANICAL PROPERTIES (Mechanische Werte)

Test Direction Temperature	Test No.	Rp0.2 0.2% Proof Stress (MPa)	Rp1.0 1% Proof Stress (MPa)	Rm Tensile (MPa)	A 5 % Elongation	A 10 % Elongation	Hardness HRB Max	Bend Test Requirement	Impact Test Kurzbeschreibung KVS	Z % Reduction of Area
Ambient Temperature	Head	270	310	631	54	58	81			
	Tail	274	314	634	55	58				
Reg @ °C										
Reg @ °C										

ADDITIONAL TEST (Zusätzliche Prüfungen)

TEST NAME (Prüfungen)	RESULT (Ergebnis)	TEST NAME (Prüfungen)	RESULT (Ergebnis)

HOLDGRADE CALCULATION (Berechnung Kurzbeschreibung)

SPECIFICATION (Norm)	RESULT (Ergebnis)
ASTM A262-10 E	Pass
EN ISO 3651-2	Pass

This material is free from mercury contamination. The radiation level exhibited by this material is not greater than the normal background level
This document is issued without alteration or erasure and may only be reproduced in full
Tests to verify batch and quality have been made. Verwechslungsprüfung wurde durchgeführt
Visual and dimensional control no exceptions. Besichtigungen und Abmessung ohne Beanstandung
The delivery is in accordance with the order. Die Lieferung entspricht den Bestellbedingungen
Made and melted in South Africa. Material has been PMI Tested
This material meets the Hardness requirement of Nace MR-0175/ISO 15156-3 2003 & MR-0103-2012

Columbus Stainless is ISO 9001 2008 & ISO 14001 2004 Certified

Permeability 1.1 Max
Columbus Stainless (Pty) ltd certifies that the analysis and material on this certification is correct and meets the specifications stated.

COLUMBUS STAINLESS (Pty) Ltd
Hendrina Road Middelburg
Mpumalanga, South Africa

P H de Vos
DER WERKS SACHVERSTANDIGE