

# INSPECTION CERTIFICATE 3.1

To: EN 10204



**COLUMBUS STAINLESS**  
[Pty] Ltd  
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South Africa  
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A Subsidiary of ACERINOX, S.A.



ZA 0045  
13  
0045-CPR-1805

Authorized Representative



Acerinox Europa, S.A.U.  
C/ Santiago de Compostela no 100. 28035  
Madrid  
Spain  
Tel: 91 398 51 00 / 91 398 51 02

Corrosion Resistant Steel for building construction or  
civil engineering.

Regulated substances: No performance determined

No. 2783406 - 1 1 / 1

Date 2014/11/20

MANUFACTURER'S MARK



MELTING PROCESS  
E/AOD

CUSTOMER  
BE GROUP OY  
LOTILA KIRKKAAT/OVET 5-7/  
VANHANRADANKATU 42  
15522 LAHTI  
Finland

O/A No.  
**DW00259**

ITEM No.  
**003**

INSPECTOR'S STAMP



CUSTOMER ORDER No.  
**P026673**

REQUIREMENTS  
AD 2000 W2  
AD 2000 W10  
Certified by TUV Rheinland to European Directive 97/23/EC for Pressure  
Equipment. Certificate no: 01 202 ZA-U-00 0001

PRODUCT  
No:1  
1D: Hot rolled, heat treated, pickled.

HEAT No.  
**398161**

MPO No.\*  
**398161/2**

\* 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.

SPECIFICATIONS	MATERIAL CODE	CASE
EN 10088-2 2005 HOT ROLLED COIL & PLATE	1.4307 1.4301	ICPL05079
EN 10028-7 2007 HOT ROLLED COIL & PLATE	1.4307 1.4301	ICPL05080
ASTMA240/A240M-14	304L 304	ICPL05081
ASME 2013 SECTION II PART A SA240	304L 304	ICPL05082
EN 10088-4 2009 HOT ROLLED COIL / PLATE	1.4307 1.4301	ICPL05083
		ICPL05084
		ICPL05085
		ICPL05086
		ICPL05087
		ICPL05088

TOLERANCE  
ISO9444-02/09 1L/R Coil/Plate-ASTMA480/A480M-ASMESA480/SA480M

Delivery Note Number:  
**74114**

DIMENSIONS  
**6.000 mm x 1500 mm x 3000 mm**

TYPE  
**X5CRNI 18-10 X2CRNI 18 9**

QUANTITY  
**50**

MASS  
**10280 kg**

### CHEMICAL ANALYSIS

### MECHANICAL PROPERTIES

%	REQUIREMENT		LADLE	Test Direction Transverse	Test Pos.	Rp0.2 0.2% Proof Stress (MPa)	Rp1.0 1% Proof Stress (MPa)	Rm UTS (MPa)	A 5 (% Elongation)	A 50 (% Elongation)	Hardness HRB	Bend Test	Impact Test ISO V	Z (% Reduction of Area)
	MIN	MAX												
C		0.030	0.028	Ambient Temperature	Head	313	354	650	54	53	88			
S		0.015	0.002		Tail	326	365	652	55	54	86			
P		0.045	0.028	Req @ °C										
Mn		2.00	1.18											
Si		1.00	0.39	Req @ °C										
Ni	8.0	10.5	8.0											
Cr	17.5	19.5	18.1											
Mo				ADDITIONAL TEST				INTERGRANULAR CORROSION						
Ti				TEST NAME	RESULT	TEST NAME	RESULT	SPECIFICATION		RESULT				
N		0.11	0.06					ASTM A262-13:E		Pass				
V								ISO 3651-2 METHOD A		Pass				
Co														
Cu														
Nb														
Sn														
Al				This material is free from mercury contamination. The radiation level exhibited by this material is not greater than the normal background level.										
B				This document is issued without alteration or erasure and may only be reproduced in full.										
				Visual and dimensional control: no exceptions. The delivery is in accordance with the order. Made and melted in South Africa.										
				This material meets the Hardness requirement of Nace MR-0175/ISO 15156-3:2009 & MR-0103-2012										
				Columbus Stainless (Pty) Ltd. certifies that the analysis and material on this certification is correct and meets the specifications stated.										
				Columbus Stainless is ISO 9001:2008 & ISO 14001:2004 Certified.										

HEAT TREATMENT (Solution Annealed)	
Anneal °C	Quench
1050 - 1100	AIR/SPRAY

Permeability 1.1 Max

**COLUMBUS STAINLESS [Pty] Ltd**  
Hendrina Road, Middelburg  
Mpumalanga, South Africa  
*P.H. de Vos*  
P.H. de Vos  
WORKS EXPERT