

INSPECTION CERTIFICATE 3.1

To: EN 10204



**COLUMBUS
STAINLESS**
[Pty] Ltd
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South Africa
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Website: <http://www.columbus.co.za>
A Subsidiary of ACERINNOX, S.A.



ZA 0045
13
0045-CPR-1805

Authorized Representative

EC	REP
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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. 2914702 - 1 1 / 1

Date 2015/08/27

MANUFACTURER'S MARK



MELTING PROCESS
E/AOD

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

O/A No.
PW00844

ITEM No.
002



CUSTOMER ORDER No.
P034746

REQUIREMENTS
AD 2000 W2
AD 2000 W10

PRODUCT
No:1
1D: Hot rolled, Plate / Coil

HEAT No.

401507

MPO No. *

4015073/1

* 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 10088-2/14 HOT ROLLED COIL/PLATE	1.4404 1.4401	JCPL18551
EN 10028-7 2007 HOT ROLLED COIL & PLATE	1.4404 1.4401	JCPL18552
ASTM A240 / A240M -15A	316L 316	JCPL18553
ASME 2013 SECTION II PART A SA240	316L 316	JCPL18554
EN 10088-4 2009 HOT ROLLED COIL / PLATE	1.4404 1.4401	JCPL18555

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

Delivery Note Number:
23657

DIMENSIONS
6.000 mm x 1500 mm x 3000 mm

TYPE
X2CRNIMO 17-12-2

QUANTITY
25
MASS
5210 kg

%	REQUIREMENT		LADLE
	MIN	MAX	
C		0.030	0.024
S		0.015	0.001
P		0.045	0.022
Mn		2.00	1.29
Si		1.00	0.47
Ni	10.0	13.0	10.0
Cr	16.5	18.5	16.5
Mo	2.00	2.50	2.01
Ti			
N		0.11	0.04
V			
Co			
Cu			
Nb			
Sn			
Al			
B			

MECHANICAL PROPERTIES										
Test Direction	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)
Transverse	Ambient Temperature	Head	336	374	611	51	51	84		
		Tail	439	476	634	48	48	93		
	Req @ °C									
	Req @ °C									
ADDITIONAL TEST						INTERGRANULAR CORROSION				
TEST NAME		RESULT	TEST NAME		RESULT	SPECIFICATION		RESULT		
						ASTM A262-13:E		Pass		
						ISO 3651-2 METHOD A		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.
Visual and dimensional control: no exceptions. The delivery is in accordance with the order. Made and melted in South Africa.
This Material has been PMI Tested.
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.
For the Declaration of Performance, please visit <http://www.columbusstainless.co.za/declaration>

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

Certified by TUV Rheinland to European Directive 97/23/EC for Pressure Equipment. Certificate no. 01 202 ZA/Q-00 0001

Permeability 1.1 Max

COLUMBUS STAINLESS [Pty] Ltd
Hendrina Road, Middelburg
Mpumalanga, South Africa

G. van Niekerk
WORKS EXPERT