

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.



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 Madrid
 Spain
 ZA 0045
 13
 0045-CPR-1805
 Tel: 91 398 51 00 / 91 398 51 02

Corrosion Resistant Steel for building construction or civil engineering.

Regulated substances: No performance determined

No. 2856139 - 1 1 / 1
 Date 2015/05/11

MANUFACTURER'S MARK

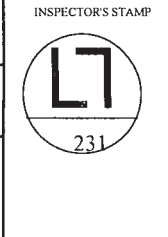


MELTING PROCESS
 E/AOD

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

O/A No. PW00522

ITEM No. 004



CUSTOMER ORDER No. P031589

REQUIREMENTS
 AD 2000 W2
 AD 2000 W10

PRODUCT
 2B
 2B: Cold rolled, heat treated, pickled, cold rolled

HEAT No. 399990

MPO No. * 3999904/1/0

* 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.

SPECIFICATIONS	MATERIAL CODE	CASE
EN 10088-2/14 COLD ROLLED COIL/SHEET	1.4404 1.4401	JHAN53479
EN 10028-7 2007 COLD ROLLED COIL & SHEET	1.4404 1.4401	JHAN53480
ASTM A240 / A240M -15A	316L 316	JHAN53481
ASME 2013 SECTION II PART A SA240	316L 316	JHAN53482
EN 10088-4 2009 COLD ROLLED COIL/SHEET	1.4404 1.4401	JHAN53483
		JHAN53484
		JHAN53485

TOLERANCE
 ISO 9445-02/09-ASTM A480/A480M-ASME SA480/SA480M C/R

Delivery Note Number: 14300

DIMENSIONS
 3.000 mm x 1500 mm x 3000 mm

TYPE X2CRNIMO 17-12-2

QUANTITY 70
 MASS 7407 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	0.024	Ambient Temperature	Head	283	316	615	58	54	79			
S		0.015	0.001		Tail	315	350	633	54	50	82			
P		0.045	0.025	Req @ °C										
Mn		2.00	1.28											
Si		1.00	0.59	Req @ °C										
Ni	10.0	13.0	10.0											
Cr	16.5	18.5	16.5											
Mo	2.00	2.50	2.02											
Ti				ADDITIONAL TEST					INTERGRANULAR CORROSION					
N		0.11	0.04	TEST NAME	RESULT	TEST NAME	RESULT	SPECIFICATION		RESULT				
V								ASTM A262-13:E		Pass				
Co								ISO 3651-2 METHOD A		Pass				
Cu														
Nb														
Sn				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. Certified by TUV Rheinland to European Directive 97/23/EC for Pressure Equipment. Certificate no: 01 202 ZA/Q-00 0001										

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

Permeability 1.1 Max

COLUMBUS STAINLESS (Pty) Ltd
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 Mpumalanga, South Africa

 P.H. de Vos
 WORKS EXPERT