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 Website: http://www.columbusstainless.co.za
 A Subsidiary of ACERINOX S.A.

INSPECTION CERTIFICATE 3.1

ACCORDING TO EN 10204

CERTIFICATE NO
3581751PED

Rev
1

ISSUE DATE
2022-07-26

MANUFACTURER'S MARK		INSPECTOR'S STAMP		MELTING PROCESS	E/AOD
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CUSTOMER ALUMECO FINLAND OY/AB KAVIOKUJA 5, TURKU, 20380 Finland	ORDER No. PW04585	ITEM No. 6	DELIVERY NOTE No. DEL222485
	CUSTOMER ORDER No. 120584889	PART No. N/A	
	REQUIREMENTS AD 2000 W2 AD 2000 W10		

SPECIFICATIONS	MATERIAL GRADE	CASE	MATERIAL	MASS	QTY
EN 10088-2-2014	1.4301 / 1.4307	QPAS027344	4352364D01A01A01	882 Kg	5
EN 10028-7-2016	1.4301 / 1.4307				
ASTM A240 / A240M-20a	304L / 304				
ASME BPVC IIA SA240 / SA240M-2021	304L / 304				

TOLERANCE ISO 9445-2 ; ASTM A480/A480M ; ASME SA480/SA480M 2B ; No. 2B	HEAT No. 435236	TYPE X5CrNi 18-10
PRODUCT Cold rolled, heat treated, pickled & skin passed stainless steel sheet	QUANTITY 5	TOTAL MASS 882 Kg
	DIMENSIONS 5 mm x 1500 mm x 3000 mm	

CHEMICAL COMPOSITION(%)													
	C	S	P	Mn	Si	Cr	Ni	N					
Min						18.0	8.0						
Max	0.030	0.015	0.045	2.00	0.75	19.5	10.5	0.10					
Heat	0.026	0.002	0.032	1.19	0.46	18.3	8.1	0.08					

MECHANICAL PROPERTIES													
TEMPERATURE	DIRECTION	POSITION	Rp0.2 MPa	Rp1.0 MPa	Rm MPa	A50 %	A5 %	HRBW HRBW					
Ambient	Transverse	Requirement Min	230	260	540	40	45						
		Max			700			92					
Ambient	Transverse	Head	298	338	652	50	56	84					
		Tail						84					

INTERGRANULAR CORROSION	
TEST	RESULT
ASTM A262 Practice E	PASS
HEAT TREATMENT (SOLUTION ANNEALED)	
Anneal °C	Quench
1050 - 1100	AIR/ WATER SPRAY

Columbus Stainless (Pty) Ltd. certifies that the analysis and material on this certification is correct and meets the specifications stated. This document is issued without alteration or erasure and may only be reproduced in full. Made and melted in South Africa. This Material is PMI Tested. Visual and dimensional control: no exceptions. The delivery is in accordance with the order. This material is free from mercury contamination. The radiation level exhibited by this material is not greater than the normal background level. This material meets the Hardness requirement of NACE MR0175 / ISO 15156-3 : 2020 & NACE MR0103 / ISO 17945 : 2015 Columbus Stainless is ISO 9001:2015 & ISO 14001:2015 Certified. Certified by TUV Rheinland to European Directive 2014/68/EU for Pressure Equipment. Certificate no: 01 2627 ZA/M1-2100010.00

Permeability 1.1 Max
 Marking: Material Code, Material No, Manufacturing Brand
 Number on material might differ from this document due to a split in material after marking, with a character and/or number added to the end.

COLUMBUS STAINLESS (PTY) LTD
 Hendrina Road, Middelburg
 Mpumalanga, South Africa

Q. Snyman
WORKS EXPERT



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ZA 0035
 13
 0035-CPR-A304

Authorised Representative
 EC REP

Acerinox Europa, S.A.U.
 C/ Santiago de Compostela no 100. 28035

Madrid
 Spain
 Tel: 91 398 51 00/ 91 398 51

Corrosion Resistant Steel for building construction or civil engineering.
Regulated substances: No performance determined

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Rev 1
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CUSTOMER ALUMECO FINLAND OY/AB KAVIOKUJA 5, TURKU, 20380 Finland	ORDER No. PW04585	ITEM No. 6	DELIVERY NOTE No. DEL222485
	CUSTOMER ORDER No. 120584889	PART No. N/A	
	REQUIREMENTS		

SPECIFICATIONS EN 10088-4-2009	MATERIAL GRADE 1.4301 / 1.4307	CASE QPAS027344	MATERIAL 435236D01A01A01	MASS QTY 882 Kg 5
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TOLERANCE ISO 9445-2	HEAT No. 435236	TYPE X5CrNi 18-10
2B	QUANTITY 5	TOTAL MASS 882 Kg
PRODUCT Cold rolled, heat treated, pickled & skin passed stainless steel sheet	DIMENSIONS 5 mm x 1500 mm x 3000 mm	

CHEMICAL COMPOSITION(%)										
	C	S	P	Mn	Si	Cr	Ni	N		
Min						17.5	8.0			
Max	0.030	0.015	0.045	2.00	1.00	19.5	10.5	0.10		
Heat	0.026	0.002	0.032	1.19	0.46	18.3	8.1	0.08		

MECHANICAL PROPERTIES							
TEMPERATURE	DIRECTION	POSITION	Rp0.2 MPa	Rp1.0 MPa	Rm MPa	A5 %	
Ambient	Transverse	Requirement Min	230	260	540	45	
		Max			700		
Ambient	Transverse	Head	298	338	652	56	
		Tail					

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HEAT TREATMENT (SOLUTION ANNEALED)				
<table border="1"> <tr> <th>Anneal °C</th> <th>Quench</th> </tr> <tr> <td>1000 - 1100</td> <td>AIR/ WATER SPRAY</td> </tr> </table>		Anneal °C	Quench	1000 - 1100
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