

ROLDAN, S.A. - Stainless Steels**FACTORY**

Santo Tomás de las Ollas, S/N
Apdo. de Correos 11
PONFERRADA (LEÓN)
TEL.: +34 987 44 61 00
FAX: +34 987 44 61 01
E-MAIL: rdn.fabrica@acerinox.com

**HEAD OFFICE**

Santiago de Compostela, 100-3°
28035 MADRID (ESPAÑA)
TEL.: +34 913 98 52 57
FAX: +34 913 98 51 93
E-MAIL: roldan@acerinox.com

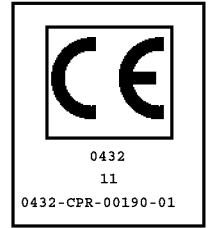
**INSPECTION
CERTIFICATE**

EN 10204 3.1

MADE IN SPAIN - EUROPEAN UNION



Sistema de
Gestión
ISO 9001:2015
ISO 14001:2015
ISO 50001:2018
www.tuv.com
ID 0091003143



EN 10.088:5

CERTIFICATE N°	2023/014457	DATE	21/11/2023	SHEET	1	DELIVERY NOTE N°	2023/001837
GRADE	ROLDAMAX-229	EN10088:3 (1.4301/1.4307.)					
CUSTOMER	BE GROUP OY AB						
DIMENSIONS	12,00 mm.	Surface finish according EN10088-3 Table 7:2H					
LENGTH	6.000 mm.	TOLERANCE	ISO h9				
PRODUCT	[341] Round bar, annealed, pickled, cold drawn, polished, both ends chamfered 45°						
REQUIREMENTS	EN10088:3	CUSTOMER ORDER					
TENSILE TEST	EN ISO 6892-1	P108663 3103102					
ACCORDING TO	EN 10272	EDITION	AD2000 W0, W2 & W10				
INTERGRANULAR CORROSION	EN ISO 3651-2 method A: SATISFACTORY	WITHOUT OBJECTIONS					
SURFACE AND DIMENSIONS CONTROL	WITHOUT OBJECTIONS	Spektrometrical Identity Test: O.K.					
IMPACT TEST, SAMPLE DIMENSIONS	EN ISO 148-1	MATERIAL FREE FROM RADIOACTIVITY					

PRODUCTION PROCESS	TRADE MARK	MARKING	INSPECTOR STAMP	QUALITY INSPECTOR
EAF + AOD +CC	RDN	HEAT NUMBER GRADE (ACX-229)	R3	JUAN JOSE ALVAREZ RODRIGUEZ QUALITY CONTROL REPRESENTATIVE

MECHANICAL PROPERTIES																	
CAST	SAMPLE	SAMPLE DIMENSIONS mm.	Observ. T°.	Rm MPa	Rp 0,2% MPa	Rp 1% MPa	Z %	A %		Agt %	IMPACT STRENGTH ISO-V (J)		HARDNESS HB	FATIGUE TEST	BEND TEST	CROSS SECTIONAL AREA mm ²	Kg / m
								L=50	L=40		20 °C	-196 °C					
3CPJ	3CPJ	12,00	20 °C	713	546	639	70	43	44				222				
REQUIREMENTS		EN ISO 377		500 900	190	225		20			100		315				

CHEMICAL COMPOSITION %														
CAST	C	P	S	Si	Mn	Cr	Ni	Mo	Ti	N	Cu	Co		
3CPJ	0,0260	0,0290	0,0300	0,5770	1,5120	18,2150	8,0000	0,5610	0,0040	0,0830	0,4510	0,1770		
REQUIREMENTS	0,0300	0,0450	0,0300	1,0000	2,0000	17,5000 19,5000	8,0000 10,5000			0,1000				

OBSERVATIONS														
--------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

OTHER TEST RESULTS	REQUIREMENTS	AD2000 W0,W2,W10 2014/68/EU(PED) UKCA PER 2016/1105
HEAT TREATMENT	1.050 °C AND WATERCOOLED	Crack tested acc. to EN10277 table 3 class 3

ROLDAN, S.A. - Stainless Steels**FACTORY**

Santo Tomás de las Ollas, S/N
Apdo. de Correos 11
PONFERRADA (LEÓN)
TEL.: +34 987 44 61 00
FAX: +34 987 44 61 01
E-MAIL: rdn.fabrica@acerinox.com

**HEAD OFFICE**

Santiago de Compostela, 100-3°
28035 MADRID (ESPAÑA)
TEL.: +34 913 98 52 57
FAX: +34 913 98 51 93
E-MAIL: roldan@acerinox.com

**INSPECTION
CERTIFICATE**

EN 10204 3.1



Sistema de
Gestión
ISO 9001:2015
ISO 14001:2015
ISO 50001:2018
www.tuv.com
ID 0091003143

MADE IN SPAIN - EUROPEAN UNION

CERTIFICATE N°	2023/014457	DATE	21/11/2023	SHEET	1	DELIVERY NOTE N°	2023/001837
----------------	-------------	------	------------	-------	---	------------------	-------------

GRADE	ROLDAMAX-229	EN10088:3 (1.4301/1.4307.)
-------	--------------	------------------------------

CUSTOMER	BE GROUP OY AB
----------	----------------

DIMENSIONS	12,00 mm.	Surface finish according EN10088-3 Table 7:2H
------------	-----------	---

LENGTH	6.000 mm.	TOLERANCE	ISO h9
--------	-----------	-----------	--------

PRODUCT	[341] Round bar, annealed, pickled, cold drawn, polished, both ends chamfered 45°
---------	---

REQUIREMENTS	EN10088:3
--------------	-----------

CUSTOMER ORDER	P108663 3103102
----------------	-----------------

TENSILE TEST	EN ISO 6892-1
--------------	---------------

ACCORDING TO	EN 10272
--------------	----------

EDITION	AD2000 W0, W2 & W10
---------	---------------------

INTERGRANULAR CORROSION	EN ISO 3651-2 method A: SATISFACTORY
-------------------------	--------------------------------------

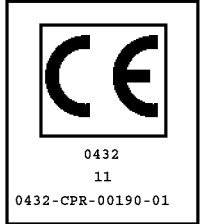
WITHOUT OBJECTIONS	
--------------------	--

SURFACE AND DIMENSIONS CONTROL	WITHOUT OBJECTIONS
--------------------------------	--------------------

Spektrometrical Identity Test:	O.K.
--------------------------------	------

IMPACT TEST, SAMPLE DIMENSIONS	EN ISO 148-1
--------------------------------	--------------

MATERIAL FREE FROM RADIOACTIVITY	
----------------------------------	--



EN 10.088:5

PRODUCTION PROCESS

EAF + AOD +CC

TRADE MARK**RDN****MARKING**

HEAT NUMBER

GRADE (ACX-229)

INSPECTOR STAMP**R3****QUALITY INSPECTOR**

JUAN JOSE ALVAREZ RODRIGUEZ

QUALITY CONTROL REPRESENTATIVE

ORDER N°	WORKS N°	MARKS / BOX	HEAT NUMBER	SAMPLE	WEIGHT
MA7497 5		10008 / JL37463-	3CPJ		278
7497		10009 / JL37467-	3CPJ		246
7497		10010 / JL37471-	3CPJ		245
7497		10011 / JL37472-	3CPJ		246
7497		10012 / JL37476-	3CPJ		263
7497		10013 / JL37480-	3CPJ		245
7497		10014 / JL37483-	3CPJ		246
7497		10015 / JL37488-	3CPJ		246