

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

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**INSPECTION
CERTIFICATE**

EN 10204 3.1



Sistema de
Gestión
ISO 9001:2015

www.tuv.com
ID 0691003143

MADE IN SPAIN - EUROPEAN UNION

CERTIFICATE N° 2019/019072 DATE 18/11/2019 SHEET 1 DELIVERY NOTE N° 2019/001981

GRADE ROLDAMAX-229 EN10088:3 (1.4307.)

CUSTOMER BE GROUP OY AB

DIMENSIONS 35,00 mm. | Surface finish according EN10088-3 Table 7:2B

LENGTH 6.000 mm. TOLERANCE ISO h9

PRODUCT [333] Round bar, annealed, smooth turned, centerless grounded, polished, both ends chamfered 45°

REQUIREMENTS EN10088:3 CUSTOMER ORDER

TENSILE TEST EN ISO 6892-1 P075031

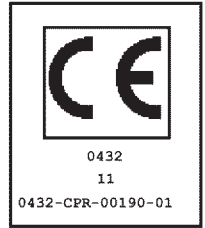
ACCORDING TO EN 10272 EDITION AD-2000 W2 AD-2000 W10

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
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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=5Ø	L=4Ø		20°C	-196°C					
X1JA	X1JA	30,00	20°C	629	327	378	71	53	55				165				
REQUIREMENTS		EN ISO 377		500 900	175	210		20			100		315				

CHEMICAL COMPOSITION %

CAST	C	P	S	Si	Mn	Cr	Ni	Mo	Ti	N	Cu	Co					
X1JA	0,0280	0,0320	0,0270	0,4220	1,4470	18,2550	8,0650	0,3720	0,0040	0,0890	0,4400	0,2090					
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 TRD100 TRB100,AD-2000-W2-W10,2014/68/EU (PED)

HEAT TREATMENT 1.050 °C AND WATERCOOLED | Crack tested acc. to EN10277 table 3 class 3

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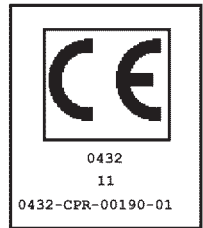


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SURFACE AND DIMENSIONS CONTROL	WITHOUT OBJECTIONS			Spektrometrical Identity Test: O.K.			
IMPACT TEST, SAMPLE DIMENSIONS	EN ISO 148-1			MATERIAL FREE FROM RADIOACTIVITY			



EN 10.088:5

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

ORDER N°	WORKS N°	MARKS / BOX	HEAT NUMBER	SAMPLE	WEIGHT
SO19002089 9		96011 / RJ13357-	X1JA		547