



C224449

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN. PROTOCOL № 390-11 SPEC. № 9728/PO44311 DIN EN 10088-3-05, DIN EN 10272-08, AD2000-Merkblatt W2, AD 2000-Merkblatt W10; ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08, ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond. A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10 GR B8M, CL1 (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8, CL1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10	Sheets: 6 Sheet: 1 INSPECTION CERTIFICATE EN10204/3.1 Nr. 336300 PLANT ORDER № 8014909728
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 GMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионноустойчивых (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПУСККИ: Электродуговая печь+АКР Round 3.750in/95.25 mm L=5.210m/17.082ft L=5.630m/18.459ft L=5.650m/18.525ft Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-670 lb/304 kg 1bund Q-1446 lb/656 kg 1bund Q-4317 lb/1958 kg
			Delivery condition solution annealed : 1900° F (1040° C) water 30 minutes термообработка: закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	Sn	B
REQUIRED	<.030	<1.00	1.20-2.00	<.040	.015-.030	16.50-18.00	10.00-13.00	2.00-2.50	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A06239	.017	.37	1.50	.040	.027	17.20	10.35	2.06	.07	.32	.05	.06	.005	.11	.01	.032	.013	.0023

DIN EN 10002-1, ASTM A370-09


MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z, % L	Brinell Hardness HB	Impact strength, KV, J	
	L	Q		A5%	In 2 inches (50mm) or 4D, min, % L			L	J
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-
EFFECTIVE	289 294	310 313	590 597	61 - 60 -	59 59	77 79	174 174	190 190 190 197 197 197	-

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASTM A388/A388M-FBH1/8"; EN 10308 type Ia; class 3: OK
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Radiation free; mercury free. No Weld or Weld repair.

TECHNICAL REQUIREMENTS:
Macrostructure – GOOD
GRAIN SIZE : 5 to ASTM E 112-96(2004)
Nonmetallic inclusions ASTM E 45-05 (Method A)
A B C D
thin thick thin thick thin thick thin thick
2.0 1.5 2.0 1.0 0.0 0.0 1.0 1.0
ICC-ASTM A262-08 (practice E)-test: O.K.
Dimension/surface defects test, anti-mixing test -- OK
We acknowledge that the delivered products conform to the requirements of the order
Ratio of reduction-35.1:1

Manufacturer: PrJSC DNIPROSPETSSTAL
Date: 27.07.18 **Manager of quality assurance department - V. Kapaieva**
Signed: 
Zaporozhye
Made in Ukraine.

ANS