

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 8367/PO43227 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 A481/A481M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10GR B8M, CL1 (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8, CL 1 (EXC PAR 7.3); NACE MR 0175-03; NACE MR 0103-10	Sheets: 4 Sheet: 1 INSPECTION CERTIFICATE EN10204/3.1 Nr. 332670 PLANT ORDER № 8014908367
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	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 3.750m/95.25 mm 1.-5.610m/18.393ft Grade: 316/316L/1.4401/1.4404	QUANTITY: (number of pcs) 1bund Q-2165 lb/982 kg
			Delivery condition solution annealed : 1900° F (1040° C) water 30minutes 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 № A05846	.019	.52	1.35	.040	.022	16.89	10.24	2.05	.065	.36	.05	.07	.006	.10	.01	.030	.012	.0022

DIN EN 10002-1, ASTM A370-09										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 3.0 2.0 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								
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		A, %	In 2 inches (50mm) or 4D, min, % L			L	Q									
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-									
EFFECTIVE	297	335	556	60 -	57	77	163	202 202 202	-									

Mechanical properties tested in state of delivery		US - testing		yes	Results: ASTM A388/A388M-FBH1/8"; EN 10308 type Ia; class 3: OK	Manufacturer: PrJSC DNIPROSPETSSTAL Date: 17.04.18 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.	
Radiation free; mercury free. No Weld or Weld repair.							

SEP 10/18