




PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 9033/PO43694 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-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: 5 Sheet: 2 INSPECTION CERTIFICATE EN10204/3.1 Nr. 333842 PLANT ORDER № 8014909033
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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 коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 4.000in/101.60 mm L=5.590m/18.328ft L=5.590m/18.328ft Grade: 316/316L/1.4401/1.4404	QUANTITY: 1bund Q-3258 lb/1478 kg (number of pcs) 1bund Q-3258 lb/1478 kg Delivery condition solution annealed :1900° F(1040° C) water 30minutes термообработка: закалка в воду
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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 № A05971	.026	.45	1.42	.040	.025	16.94	10.25	2.09	.065	.28	.05	.16	.005	.09	.011	.025	.0086	.0024

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) <table style="width:100%; text-align: center;"> <tr> <td colspan="2">A</td> <td colspan="2">B</td> <td colspan="2">C</td> <td colspan="2">D</td> </tr> <tr> <td>thin</td><td>thick</td> <td>thin</td><td>thick</td> <td>thin</td><td>thick</td> <td>thin</td><td>thick</td> </tr> <tr> <td>3.0</td><td>2.0</td> <td>3.0</td><td>2.0</td> <td>0.0</td><td>0.0</td> <td>1.0</td><td>1.0</td> </tr> </table> 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										A		B		C		D		thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0
A		B		C		D																																					
thin	thick	thin	thick	thin	thick	thin	thick																																				
3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0																																				
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																																			
				A5 % L Q	In 2 inches (50mm) or 4D, min, % L			L	Q																																		
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-																																		
EFFECTIVE	297 301	335 342	559 563	60 - 60 -	59 59	78 77	163 163	208 208 208 202 202 202	-																																		

US - testing	yes	Results: ASTM A388/A388M-FBH1/8"; EN 10308 type 1a; class 3:OK	
Radiation free; mercury free. No Weld or Weld repair.			Manufacturer: PrJSC DNIPROSPETSSTAL Date: 18.05.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.

June 27/14

ANS