



# HT# A06239


C22457

## 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-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: 7 Sheet: 3 <b>INSPECTION CERTIFICATE EN10204/3.1 Nr. 336732</b> PLANT ORDER № 8014909728
	 GMS Certified	<b>CUSTOMER</b> <b>DSS INTERNATIONAL</b> SA Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР</b> Round 4.000in/101.60 mm L=5.590/18.328ft L=5.640m/18.492ft L=5.640m/18.492ft <b>Grade: 316/316L/1.4401/1.4404</b>
		<b>QUANTITY:</b> (number of pcs)	1bund Q-1631 lb/740 kg 1bund Q-820 lb/372 kg 1bund Q-4101 lb/1860 kg
		<b>Delivery condition</b> solution annealed :1900° F(1040°C) water 30minutes термообработка: заковка 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 <sup>2</sup> ) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm <sup>2</sup> )	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J																	
	L	Q		A <sub>5</sub> % L Q	In 2 inches (50mm) or 4D, min, % L			L	Q																
REQUIRED	205	240	515-690	40 -	40	50	140-217	100	-																
EFFECTIVE	285 290	301 305	594 599	61 - 62 -	59 59	77 79	174 174	185 185 185 180 180 180	-																
<b>Mechanical properties tested in state of delivery</b>																									
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.																									
<b>TECHNICAL REQUIREMENTS:</b> 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>A</td><td>B</td><td>C</td><td>D</td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>2.5</td><td>2.0</td><td>2.5</td><td>2.0</td> </tr> <tr> <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 Ratio of reduction-22.6:1 Manufacturer: PrJSC DNIPROSPETSSTAL Date: 09.08.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.										A	B	C	D	thin	thick	thin	thick	2.5	2.0	2.5	2.0	0.0	0.0	1.0	1.0
A	B	C	D																						
thin	thick	thin	thick																						
2.5	2.0	2.5	2.0																						
0.0	0.0	1.0	1.0																						

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