



# A00040 (7.25)

C099817


**PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE**

	Contract No.: 50005 TECHN.PROTOCOL № 390-11 SPEC.№ 1816/P031589 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; ASME SA-193/SA-193M-10 GR B8, CL 1; ASTM A320/A320M-08 GR B8M, CL 1; ASME SA-320/SA-320M-10 GR B8, CL1; NACE MR 0175-03; NACE MR 0103-10	Sheets: 6                      Sheet: 3 <b>QUALITY CERTIFICATE EN10204/3.1 Nr.279149</b> PLANT ORDER № 8014901816
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 DSS Certified	<b>CUSTOMER</b> DSS INTERNATIONAL 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 7.250in/184.15 mm L=4.730m/15.508ft L=4.640m/15.213ft L=4.720m/15.475ft <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: (number of pcs) 1bund Q-2293 lb/1040 kg 1bund Q-2249 lb/1020 kg 1bund Q-2288 lb/1038 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 <sub>2</sub>	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 № A00040	.023	.36	1.30	.038	.025	16,86	10.23	2.06	.074	.29	.04	.09	.005	.09	.01	.029	.014	.001

DIN EN 10002-1, ASTM A370-09										<b>TECHNICAL REQUIREMENTS:</b> Macrostructure – GOOD GRAIN SIZE: 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM B 45-05 (Method A): <table style="width: 100%; text-align: center;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td></td><td></td><td></td><td></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>2.5</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										A	B	C	D					thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	2.5	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	2.5	2.0	0.0	0.0	1.0	1.0																																				
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																																			
	A <sub>5</sub> % L	Q		In 2 inches (50mm) or 4D, min, % L	L			Q																																			
REQUIRED	205	240	515-690	45 35	40	50	140-223	100	60																																		
EFFECTIVE	285 279	324 319	589 585	60 52 60 50	56 57	75 75	170 170	245 245 245 251 251 251	61 61 61 61 61 61																																		

US - testing	yes	Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)-FBH11/8"; EN 10308 type 1a; class 3:OK	Manufacturer: PJSC DNIPROSPETSSTAL Date: 16.12.13    Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			