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

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 8683/PO43415-ED 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: <b>Sheet:</b> <b>INSPECTION CERTIFICATE EN10204/3.1 Nr. 333373</b> PLANT ORDER № 8014908683
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	CUSTOMER <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 коррозионнстойких (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф. <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ:Электродуговая печь+АКР</b> Round 3.750in/95.25 mm L=4.150m/13.607ft L=4.110m/13.475ft L=5.590m/18.328ft L=5.590m/18.328ft <b>Grade: 316/316L/1.4401/1.4404</b>	QUANTITY: (number of pcs) 1bund Q-538 lb/244 kg 1bund Q-534 lb/242 kg 1bund Q-4308 lb/1954 kg 1bund Q-728 lb/330 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 № A05895	.017	.43	1.30	.040	.025	16.89	10.41	2.07	.08	.12	.05	.15	.005	.12	.011	.030	.008	.0029

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		Reducti on of area, Z % L	Brinell Hardness HB	Impact strength, KV, J	
	L	Q		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	305 300	347 346	558 553	60 - 59 -	58 58	77 77	163 163	202 202 202 208 208 208	-

**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
3.0	2.0	2.0	1.0
0.0	0.0	0.0	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 tested in state of delivery

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: 03.05.18 Manager of quality assurance department - V. Kapaieva  
 Signed:   
 Zaporozhye  
 Made in Ukraine.

ANS