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PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 5867/P026485-ED 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-10 GR B8M,CL1 (EXC PAR 7.2);ASME SA-193/SA-193M-10GR B8M,CL1(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10	Sheets:16 Sheet: 10 QUALITY CERTIFICATE EN10204/3.1 Nr.262790 PLANT ORDER № 8014905867
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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 3.75m/95.25 mm L=3.400-5.500m/11.148-18.033ft Grade: 316/F316/316L/F316L	QUANTITY: 1bund Q-1733 lb/786 kg (number of pcs)
		Delivery condition Solution annealed :1900-2010° F(1040-1100° C)/water термообработка:закалка в воду	

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N ₂		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № 97781	.020	.36	1.31	.037	.022	16,84	10.11	2.06	.066	.28	.05	.06	.099	.11	.013	.0350		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{e2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	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 2.0 1.0 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
REQUIRED	36(248)	75 (515)	45	50	140-223	100	
EFFECTIVE	37.1(255)	82.3(565)	59	75	163	244	

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921,group 3/class Dd - OK ASTM A-388 FBH 1/8 (3.175mm)	Manufacturer: PJSC DNIPROSPETSSTAL Date: 07.06.12 Manager of quality assurance department - V. Kapaieva Signed: 
Radiation free; mercury free. No Weld or Weld repair.			Zaporozhye Made in Ukraine.