

ASA PO 76319 W05513 CPA 3-80

**95870**

C031300



**DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE**

Contract No.: 50005  
 TECHN.PROTOCOL № 210-06 SPEC.№1462/PO23042  
 ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;  
 ASTM A479/A479M-04; ASTM SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03  
 Cond.A; NACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M,CL1 (EXC PAR 6.3)  
 ASME SA-193/SA-193M-04GR B8M,CL1 (EXC PAR 6.3); NACE MR0103

*ok with 9/16/11*

EN10204/3.1

Sheets: 6 Sheet: 1  
 QUALITY CERTIFICATE Nr.243760  
 PLANT ORDER № 8014901462

CUSTOMER „DSS INTERNATIONAL SA“ Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line Прутки из коррозионноустойчивых (нержавеющих) сталей горячекатаные обточены на линии Ландаграф	QUANTITY: 1bund Q-2676 lb/1214kg (number of pcs) 1bund Q-3832 lb/1738kg
	STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 5.250in/133.35 mm L=3.40-5.50m/11.15-18.03ft Grade: 316/F316/316L/F316L	Delivery condition solution annealed :1900-2010°F(1040-1100°C)/water термообработка: закатка в воду

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>
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
<b>HEAT № 95870</b>	.024	.34	1.36	.037	.026	16.65	10.15	2.02	.075	.22	.05	.10	.10	.08	.01	.036

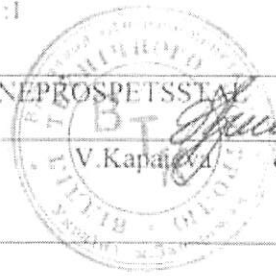
MECHANICAL PROPERTIES „ASTM A370-08a“	Yield Strength, Ksi(MPA)	Tensile Strength, Rm,ksi (N/mm <sup>2</sup> )	Elongation in 2 inches (50mm) or 4D, min, % (ASTM A370)	Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV <sub>J</sub>
REQUIRED	36(248)	75 (515)	45	50	140-225	100
EFFECTIVE	43.1(296)	85.0(584)	59	74.5	170	213

TECHNICAL REQUIREMENTS:  
 Macrostructure – GOOD  
 GRAIN SIZE : 5 to ASTM E 112  
 Nonmetallic inclusions ASTM E 45 (Method A)  
 A B C D  
 thin thick thin thick thin thick thin thick  
 2.5 2.0 2.4 1.6 0.0 0.0 1.0 1.0  
 ICC-ASTM A262-02a(Method E)-test: O.K.  
 „Dimension/surface defects test, anti-mixing test – O.K.“  
 Ratio of reduction-18.67 :1

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Dd - O.K.
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Manufacturer: JSC DNEPROSPETSSTAL  
 Date: 21.02.11 Signed: *[Signature]*  
 V.Kapal'eva  
 Zaporozhye  
 Made in Ukraine.



*SV MC*

Radiation free; mercury free. No Weld or Weld repair.