

95972

DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

0031309

Contract No.: 50005
 TECHN. PROTOCOL № 210-06 SPEC. № 1882/P023364-ED
 ASTM A182/A182M-05 ASME SA-182/SA-182M-04 ASTM A276-04;
 ASTM A479/A479M-04 ASTM B SA-479/SA-479M-04 ASTM A484/A484M-05 AMS QQ-S-783A-03
 GOST 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-04 GR. B8M, CL1 (EXC. PAR 6.3) NACE MR0103

Sheet: 5 Sheet: 1
QUALITY CERTIFICATE № 243761
 PLANT ORDER № 8014901882

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 обработанные на линии Ландграф.	QUANTITY: 1捆 Q-3474 B/1576 kg (number of pcs) 1捆 Q-3147 B/974 kg
	STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AOP Round 5000/127.00 mm L=3.40-5.50m/11.15-18.03ft Grade: 316/F516/316L/F516L	Delivery condition: solution annealed: 1900-2010° F (1040-1100° C) water термобработка: закалка в воду

ANALYSES, %	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		
HEAT № 95972	.022	.32	1.35	.031	.023	17.03	10.05	3.03	.059	.28	.07	.14	.13	.08	.01	.027		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, ksi (N/mm ²) R _e (R _{eH})	Tensile Strength, ksi (N/mm ²) R _m (R _m)	Elongation in 2 inch (50mm) or more, % (ASTM A370)	Reduction of area, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75(515)	45	50	140-223	100
EFFECTIVE	38.8(264)	85.9(590)	60	75	174	254

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
 2.0 1.5 2.0 1.5 0 0 1.0 1.0
 ICC-ASTM A262-02a (Method B)-test: O.K.
 Dimension/surface defects test, anti-mixing test - O.K.
 Ratio of reduction: 21.6:1

Mechanical properties tested in state of delivery

US - testing yes Results: SEP 1921, 3/ Dd - O.K.

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

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 20.02.11 Signed: 
 Zaporozhye
 Made in Ukraine.

