

C015218

94969



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

QMS Certified

Contract No.: 07149
 TECHN. PROTOCOL № 210-06 SPEC. № 6152/P021010
 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; NACB 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);

EN10204/3.1

Sheets: 8 Sheet: 4
 QUALITY CERTIFICATE Nr. 234226
 PLANT ORDER № 8071496152

CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peled on Landgraf line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные обточенные на линии Ландграф.
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.

QUANTITY: 1bund Q-2604 lb/1222 kg
 (number of pcs) 1bund Q-3968 lb/1800 kg
Delivery condition
 solution annealed :1900-2010° F(1040-1100° C)/water
 термообработка: 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 № 94969	.023	.25	1.33	.040	.024	16.68	10.30	2.01	.07	.34	.04	.15	.096	.07	.01	.029

MECHANICAL PROPERTIES	ASTM A 370-08a					
	Yield Strength, Ksi(N/mm ²) Re (R _e)	Tensile Strength, Rm, ksi (N/mm ²)	Elongation in 2 inches (50mm) or 10, min, % (ASTM A370)	Reduction of area, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	36.2(249)	78.5(539)	64	73	159	289

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
2.5	2.5	1.5	1.5
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: 16.06.10 Signed: *[Signature]*
 V. Kapaitseva

Radiation free; mercury free. No Weld or Weld repair.
 Zaporozhyc
 Made in Ukraine.