

0004/006

913602

4" IBL



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Contract No.: 07149
 TECHN.PROTOCOL № 210-06 SPEC.№2445/PO16248
 ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;
 ASTM A479/A479M-04; ASME SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03
 Cond.A; NACE MR 0175-2000; 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 MR 0175

Sheets:7 Sheet: 1
 QUALITY CERTIFICATE EN10204/3.1Nr.216943
 PLANT ORDER № 8071492445

CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Rods of corrosion-resistant (stainless) steel hot rolled peeled on "Landgraf" line.
 Прутки из коррозионноустойчивых (нержавеющих) сталей горячекатаные
 отбеленные на линии «Ландграф».
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round (4.00in) 101.60 mm L=3.40-5.50m
 Grade: 316/F316/316L/F316L

QUANTITY:
 1bund Q-639 lb/290 kg
 1bund Q-2513 lb/1140 kg
 (number of pcs) 1bund Q-2513 lb/1140 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		
CAST № 913602	.018	.60	1.43	.036	.020	17.00	10.14	2.14	.060	.31	.04	.12	.095	.08	.014	.052		

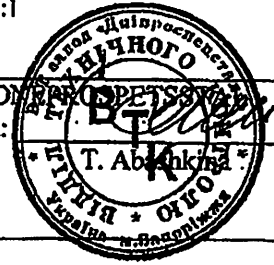
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{e2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75 (515)	45	50	140-223	100
EFFECTIVE	39.8(275)	83.0(573)	56	75	167	275

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 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->20 : 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: 16.09.08 Signed: T. Abankina
 Zaporozhye
 Made in Ukraine.



19212

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