

94531

C001570



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

QMS Certified

Contract No.: 07149
 TECHN. PROTOCOL № 210-06 SPEC. № 4730/PO19485
 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;
 ASME SA-193/SA-193M-04GR B8M, CL1;

Sheets: 6 Sheet: 4
QUALITY CERTIFICATE EN10204/3.1 Nr. 228294
 PLANT ORDER № 8071494730

CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Rods of corrosion-resistant (stainless) steel forged, peeled.
 Прутки из коррозионноустойчивых (нержавеющих) сталей кованы, обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round 11.000in/279.40 mm L=3.52m/11.54ft
 Grade: 316/F316/316L/F316L

QUANTITY:
 (number of pcs) 1bund Q-3902 lb/1770 kg

Delivery condition
 solution annealed :1900-2010° F(1040-1100° C)/water/19 minutes
 термообработка: закалка в воду /19 мин.

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 № 94531	.025	.36	1.63	.040	.024	16.98	10.28	2.07	.045	.26	.04	.08	.005	.13	.01	.070		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{eL})	Tensile Strength, Rm, ksi (N/mm ²)	Elongation in 2 inches (50mm) or 4D, min % (ASTM A370)	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	36(248)	75 (515)	45	50	140-223	100
EFFECTIVE	42.9(295)	82.4(566)	60	75	167	259

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	2.0	2.5	2.0
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- 7.64:1

Mechanical properties tested in state of delivery

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

Manufacturer: JSC DNEPROSPETSSTAL
 Date: 10.12.09 Signed:
 V. Kaptevis
 Zaporozhye
 Made in Ukraine.

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