

C+D
 PO 76190
 WO 5501
 CPA - 12 WID 40

PO 1577
 96150



DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE

Purchase order No.: 50005
 TECHN. PROTOCOL № 210-06 SPEC. № 1736/5400090375-RO2
 „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 5639H-02; AMS 5647H-02; ASTM A193/A193M-04 GR B8, CL1; ASME SA-193/SA-193M-04 GR B8, CL 1

EN10204/3.1
 Sheets: 3 Sheet: 3
 QUALITY CERTIFICATE Nr. 245277
 PLANT ORDER № 8025201736

CUSTOMER
 „DSS INTERNATIONAL SA“
 Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged peeled.
 Прутки из коррозионноустойчивых (нержавеющих) сталей кованные обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round 13.000in/330.20 mm L=2.85m/9.34ft; 3.06m/10.03 ft; 2.89m/9.48ft
 Grade: 304/F304/304L/F304L

QUANTITY: 1bundQ-4398 lb/1995 kg
 1bundQ-4685 lb/2125 kg
 (number of pcs) 1bundQ-4409 lb/2000 kg
 Delivery condition
 solution annealed : 1900-2010⁰ F(1040-1100⁰ 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	18.00-20.00	8.00-10.50	<.30	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10
HEAT № 96150	.025	.38	1.56	.033	.022	18,58	8.19	.25	.039	.21	.06	.10	.006	.07	.010	.039

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{s,2})	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	47.6(327)	86.3(593)	60	75	174	274

TECHNICAL REQUIREMENTS:
 Macrostructure – GOOD
 GRAIN SIZE : 4 to ASTM E 112
 Nonmetallic inclusions ASTM E 45 (Method A)

A	B	C	D
thin	thick	thin	thick
2.5	1.5	1.5	1.0
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- 6.3:1

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Cc - O.K.
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Manufacturer: JSC DNEPROSPETSSTAL
 Date: 30.03.11 Signed: V.Kapayeva
 Zaporozhye
 Made in Ukraine.



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