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QMS Certified



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-04cGR B8,CL1; ASME SA-193/SA-193M-04 GR B8,CL 1

EN10204/3.1

Sheets:3 Sheet: 1
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 коррозионностойких (нержавеющих) сталей кованные обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round 11.000in/279.40 mm L=4.24m/13.90ft; 3.26m/10.69ft; 4.15m/13.61ft; 3.955m/12.98ft;
 Grade: 304/F304/304L/F304L

1bundQ-4683 lb/2124 kg 1bundQ-4321 lb/1960 kg
QUANTITY: 1bundQ-3589 lb/1628 kg
 (number of pcs) 1bundQ-4572 lb/2074 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	18.00-20.00	8.00-10.50	<.30	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10
HEAT № 96057	.023	.32	1.61	.039	.025	18,72	8.23	.25	.071	.26	.04	.14	.007	.06	.010	.086

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongat ion A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75 (515)	45	50	140-223	100
EFFECTIVE	45.7(314)	85.6(587)	59	79	170	260

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
3.0	2.5	2.0	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
 Ratio of reduction- 8.23:1

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.Kapaleva
 Zaporozhye
 Made in Ukraine.



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