

HT# A05382 SW# 4926

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PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
 TECHN. PROTOCOL № 390-11 SPEC. № 6956/PO42393-ED
 DIN EN 10088-3-05, DIN EN 10272-08, AD2000-Merkblatt W2, AD 2000-Merkblatt W10, ASTM A182/A182M-10, ASME SA-182/SA-182M-10, ASTM A276-10, ASTM A314-08, ASTM A479/A479M-10, ASME SA-479/SA-479M-10, ASTM A484/A484M-10, ASME QQ-S-763B-06 Cond. A, AMS 5648K-07, AMS 5653F-07, ASTM A193/A193M-10GR B8M, CL1 (EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8CL1 (EXC PAR 7.3), NACE MR 0175-03, NACE MR 0103-10

INSPECTION CERTIFICATE, EN 10204/3.1 Nr. 328232
 PLANT ORDER № 8014906956

CUSTOMER
DSS INTERNATIONAL
 SA Switzerland

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

STEEL MAKING PROCESS: EAF+AOID
СПОСОБ ВЫПУСКА: Электроплавка пель-АКР
 Round 3.750m/95.25 mm L=5.590m/18.328ft
 Grade: 316/316L/1.4401/1.4404

QUANTITY:
 (number of pcs) **1bund Q-3589 lb/1628 kg**

Delivery condition
 solution annealed: 1900°F (1040°C) water 30minutes
 термообработка: закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	Sn	B
REQUIRED	<030	<1.00	1.20-2.00	<040	.015-.030	16.50-18.00	10.00-13.00	2.00-2.50	<10	<40	<10	<20	<15	<40	<20	<10		
CAST № A05382	.018	.47	1.29	.040	.025	16.82	10.24	2.11	.078	.27	.05	.11	.005	.10	.01	.020	.0083	.0026

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, R0.2% R (N/mm ²)	Tensile Strength, Rm (N/mm ²)	Elongation		Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J	
			A ₅ *, L	Q			L	Q
REQUIRED	205	515-690	40	40	50	140-217	100	-
EFFECTIVE	291	601	61	59	75	179	225	225

TECHNICAL REQUIREMENTS:
 Macrostructure - GOOD
 GRAIN SIZE: 5 to ASTM E 112-96(2004)
 Nonmetallic inclusions ASTM E 45-05 (Method A)
 A B C D
 thin thick thin thick thin thick thin thick
 2.5 2.0 2.5 2.0 0.0 0.0 1.0 1.0
 ICC-ASTM A262-08 (practice F)-test: O.K.
 Dimension/surface defects test, anti-mixing test - OK
 We acknowledge that the delivered products conform to the requirements of the order

Mechanical properties tested in state of delivery

US - testing yes

Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)
 FBIII/8; EN 10308 type Ia; class 3-OK

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

Manufacturer: PrJSC DNIPROSPETSSTAL
 Date: 12.12.17
 Manager of quality assurance department - V. Kapaieva
 Signed: *[Signature]*
 Zaporozhye
 Made in Ukraine.

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