

C119360

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

Contract No.: 20002
TECHN PROTOCOL № 390-11 SPEC.№ 5037/P034083-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; AMS-QQ-S-763B-06 Cond. A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10 GR B8M, CL1; ASME SA-193/SA-193M-10 GR B8, CL 1; ASTM A320/A320M-08 GR B8M, CL 1; ASME SA-320/SA-320M-10 GR B8M, CL 1; NACE MR 0175-03; NACE MR 0103-10

Sheets:5 Sheet: 2
INSPECTION CERTIFICATE EN10204/3.1 Nr.290138
 PLANT ORDER № 8014905037


CUSTOMER
DSS INTERNATIONAL
SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (пержавеющих) сталей горячекатаные, обточенные на линии Ландграф.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР
 Round 5.250m/133.35 mm L=5.310m/17.410ft L=5.060m/16.590ft
Grade: 316/316L/1.4401/1.4404

QUANTITY: 1bund Q-2606 lb/1182 kg
 (number of pcs) 1bund Q-2540 lb/1152 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 ₂	St ₁	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 № A01413	.022	.41	1.26	.034	.025	16,80	10.20	2.03	.062	.24	.06	.12	.005	.10	.019	.030	.010	.001


DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm, (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HBB	Impact strength, KV, J		
				A, % L Q	In 2 inches (50mm) or 4D, min, % L			I	Q	
REQUIRED	205	240	515-700	40 -	40	50	140-217	100		
EFFECTIVE	278 281	294 297	563 565	58 - 57 -	57 56	75 75	163 163	237 231	237 231	235 230

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 1.5 1.0 0.0 0.0 1.0 1.0
 ICC-ASTM A262-08 (practice E)-test: O.K.
 Dimension/surface defects test, anti-mixing test – OK

Mechanical properties tested in state of delivery

US - testing yes Results: ASME SA-388/SA-388M-10(ASM A 388/A 388M-09)-FBH1/8";EN 10308 type la;class 3:OK

Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 12.11.14 Manager of quality assurance department - V. Kapaieva
 Signed: 
 Zaporozhyc
 Made in Ukraine.

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