



C195410

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 210-11 SPEC.№ 5132/P04822 ASTM A182/A182M-15;ASME SA-182/SA-182M-13;ASTM A276-15;ASTM A314-15;ASTM A479/A479M-15;ASME SA-479/SA-479M-13;ASTM A484/A484M-15;AMS-QQ-S-763D-15 Cond.A; AMS 5648L-11;AMS 5653H-12;ASTM A193/A193M-15a GR B8M,CL1 (EXC PAR 6.2);ASME SA-193/SA-193M-13GR B8M,CL1(EXC PAR 7.3)ANSI/NACE MR 0175/ISO 15156-03-15;NACE MR 0103-12	Sheets:6 Sheet: 4 INSPECTION CERTIFICATE EN10204/3.1 Nr.322259 PLANT ORDER № 8015215132
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 GMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии «Ландграф». STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 5.000in/127.00 mm L=12.754ft/3.890m L=12.918ft/3.940m L=12.852ft/3.920m Grade: 316/F316/316L/F316L	QUANTITY: (number of pcs) 1bund Q-3536 lb/1604 kg 1bund Q-2685 lb/1218 kg 1bund Q-899 lb/408 kg Delivery condition solution annealed :1900-2010° F(1040-1100° C)/water термообработка:закалка в воду
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ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N		
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 № A04827	.022	.47	1.33	.034	.025	16,87	10.30	2.10	.073	.19	.03	.04	.005	.07	.014	.032		

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation ASTM A370-09 In2inches (50mm) or 4D	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75 (515)	45	50	140-223	100
EFFECTIVE	39.6 (272)	82.7(568)	60	78	167	211

Mechanical properties tested in state of delivery


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
3.0	2.0	2.0	1.0
0.0	0.0	0.0	1.0

ICC-ASTM A262-08 (practice E)-test: O.K.
 Dimension/surface defects test, anti-mixing test – OK
 We acknowledge that the delivered products conform to the requirements of the order
 Ratio of reduction-24.0:1

US - testing	yes	Results: SEP 1921,group 3/class Dd - OK	
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Radiation free; mercury free. No Weld or Weld repair

Manufacturer: PrJSC DNIPROSPETSSTAL Date: 30.06.17 Manager of quality assurance department - V. Kapaieva Signed: Zaporozhye Made in Ukraine.	
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