



98637

C073837


PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 8163/P028592-ED ASTM A182/A182M-10;ASME SA-182/SA-182M-10;ASTM A276-10;ASTM A314-08;ASTM A479A479M-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 (EXC PAR 7.2);ASME SA-193/SA-193M-10GR B8M,CL1(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10	Sheets:9 Sheet: 1 QUALITY CERTIFICATE EN10204/3.1 Nr.268191 PLANT ORDER № 8014908163
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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 5.250in/133.35 mm L=5.260m/17.246ft L=5.400m/17.705ft Grade: 316/F316/316L/F316L	QUANTITY: 1bund Q-2654 lb/1204 kg (number of pcs) 1bund Q-3968 lb/1800 kg	Delivery condition solution annealed :1900-2010 ⁰ F(1040-1100 ⁰ C)/water,30' minutes. 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 ₂		
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 № 98637	.023	.42	1.38	.032	.022	16,96	10.24	2.07	.066	.23	.07	.18	.005	.08	.011	.041		

ASTM A370							TECHNICAL REQUIREMENTS: Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 10%;">A</td><td style="width: 10%;">B</td><td style="width: 10%;">C</td><td style="width: 10%;">D</td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>3.0</td><td>2.0</td><td>3.0</td><td>2.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td><td></td><td></td> </tr> </table> ICC-ASTM A262-08 (practice E)-test: O.K. Dimension/surface defects test, anti-mixing test – OK	A	B	C	D							thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	3.0	2.0	0.0	0.0	1.0	1.0		
A	B	C	D																																		
thin	thick	thin	thick	thin	thick	thin		thick	thin	thick																											
3.0	2.0	3.0	2.0	0.0	0.0	1.0		1.0																													
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{eL})	Tensile Strength, Rm,ksi (N /mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J																															
REQUIRED	36(248)	75 (515)	45	50	140-223	100																															
EFFECTIVE	39.7(272)	82.1(564)	62	76,5	163	285																															
Mechanical properties tested in state of delivery																																					

US - testing	yes	Results: «ASTM A 388 FBH 1/8 "»	Manufacturer: PJSC DNIPROSPETSSTAL Date: 11.12.12 Manager of quality assurance department - V. Kapaieva Signed: 
Radiation free; mercury free. No Weld or Weld repair.			Zaporozhye Made in Ukraine.