



# 98434

C071107


**PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYYE, UKRAINE**

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 7695/P028087-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,CLI (EXC PAR 7.2);ASME SA-193/SA-193M-10GR B8M,CLI(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10	Sheets:5                      Sheet: 1 <b>QUALITY CERTIFICATE EN10204/3.1 Nr.266939</b> PLANT ORDER № 8014907695
---	---	--

 GMS Certified	CUSTOMER <b>DSS INTERNATIONAL SA</b> Switzerland	<b>PRODUCT DESCRIPTION</b> Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line.Прутки из коррозионностойких (нержавеющих) сталей горячекатаные, обточенные на линии «Ландграф». <b>STEEL MAKING PROCESS: EAF+AOD</b> <b>СПОСОБ ВЫПЛАВКИ:</b> Электродуговая печь+АКР Round 5.000in/127.00 mm L=4.970m/16.295ft,L=5.170m/16.951ft, L=3.630m/11.902ft <b>Grade: 316/F316/316L/F316L</b>	QUANTITY: (number of pcs) <b>1bund Q-3382 lb/1534 kg</b> <b>1bund Q-2306 lb/1046 kg</b> <b>1bund Q-829 lb/376 kg</b>	Delivery condition solution annealed :1900-2010 <sup>0</sup> F(1040-1100 <sup>0</sup> C)/water термообработка:закалка в воду
--	--	--	---	--

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
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 № 98434	.020	.47	1.36	.036	.029	17,07	10.16	2.05	.078	.24	.04	.09	.006	.08	.01	.029		

ASTM A370							<b>TECHNICAL REQUIREMENTS:</b> 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; font-size: small;"> <tr> <td>A</td><td>B</td><td>C</td><td>D</td><td></td><td></td><td></td><td></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> </tr> <tr> <td>2.0</td><td>2.0</td><td>1.5</td><td>1.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</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	2.0	2.0	1.5	1.0	0.0	0.0	1.0	1.0
A	B	C	D																												
thin	thick	thin	thick	thin	thick	thin		thick																							
2.0	2.0	1.5	1.0	0.0	0.0	1.0	1.0																								
MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>0.2</sub> )	Tensile Strength, Rm,ksi (N /mm <sup>2</sup> )	Elongation A <sub>5</sub> %	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)	78.4(538)	63	79	156	290																									
Mechanical properties tested in state of delivery																															

US - testing	yes	Results: «ASTM A 388 FBH 1/8”»	Manufacturer: PJSC DNIPROSPETSSTAL Date: 27.10.12 <b>Manager of quality assurance</b> department - V. Kapaieva                      Signed:   Zaporozhye Made in Ukraine.
Radiation free; mercury free. No Weld or Weld repair.			