



97543

C058063


ASA PO 77322 NO 5772/3 CPA 4 FOE 40/80 10' + 197.5" (2 cuts)

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	Contract No.: 50005 TECHN.PROTOCOL № 210-11 SPEC.№ 5867/P026485-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: 3 QUALITY CERTIFICATE EN10204/3.1 Nr.260934 PLANT ORDER № 8014905867
 GMS Certified	CUSTOMER DSS INTERNATIONAL SA Switzerland <i>OK</i> <i>7/13/12</i>	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 6.25in/158.75mm L=3.400-5.500m/11.148-18.033ft Grade: 316/F316/316L/F316L
		QUANTITY: 1bund Q-1795 lb/814 kg (number of pcs) Delivery condition Solution annealed :1900-2010° F(1040-1100° C)/water/10 minytes термообработка:закалка в воду/10 мин.

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 Heat # № 97543	.023	.50	1.29	.038	.021	16,76	10.25	2.07	.073	.24	.05	.09	.092	.08	.01	.0320		

ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{m2})	Tensile Strength, Rm,ksi (N/mm ²)	Elongation A ₅ %	Reduction of area, Z %	Brinell Hardness HB	Impact strength, KV, J	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></td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td></td> </tr> <tr> <td></td> <td>thin</td> <td>thick</td> <td>thin</td> <td>thick</td> <td>thin</td> </tr> <tr> <td></td> <td>2.5</td> <td>2.0</td> <td>1.5</td> <td>1.0</td> <td>0.0</td> </tr> <tr> <td></td> <td>0.0</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		2.5	2.0	1.5	1.0	0.0		0.0	0.0	0.0	1.0	1.0
	A	B	C	D																											
	thin	thick	thin	thick	thin																										
	2.5	2.0	1.5	1.0	0.0																										
	0.0	0.0	0.0	1.0	1.0																										
REQUIRED	36(248)	75 (515)	45	50	140-223	100																									
EFFECTIVE	39.4(268)	83.0(565)	60	75	167	249																									
Mechanical properties tested in state of delivery																															
US - testing	yes	Results: SEP 1921,group 3/class Dd - OK ASTM A-388 FBH 1/8 (3.175mm)																													
Radiation free; mercury free. No Weld or Weld repair.																															
Manufacturer: PJSC DNIPROSPETSSTAL Date: 19.04.12 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.																															

S.V.