


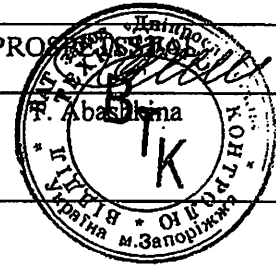


93137. (4.5")

	JSC DNEPROSPETSSTAL YUZHNOYE SHOSSE 69008, ZAPOROZHYE UKRAINE		Purchase order No.: 07149 TECHN. PROTOCOL № 210-06 SPEC. № 06945-06R603-AG „ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04; ASTM A479/A479M-04; ASTM E SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-QQ-S-763A-03 Cond.A; NACE MR 0175-2000; AMS 5639H-02; AMS 3647H-02; ASTM A193/A193M-04c GR B8,CL1 (EXC PAR 6.3) ASME SA-193/SA-193M-04 GR B8,CL1 (EXC PAR 6.3) NACE MR0175	Sheets: 9 Sheet: 2 QUALITY CERTIFICATE EN10204/3.1 Nr.207670 PLANT ORDER № 8071490685
CUSTOMER: „DSS INTERNATIONAL SA Switzerland			PRODUCT DESCRIPTION Rods of corrosion-resistant (stainless) steel hot rolled peeled on "Landgraf" line. Прутки из коррозионностойких (нержавеющих) сталей горячекатаные обточенные на линии «Ландграф».	QUANTITY: (number of pcs) 1bund Q-4123 lb/1870kg
			STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПУСККИ: Электродуговая печь+АКР Round 4,50in/114,30 mm L=3.80-5.80m Grade: 304/F304L/304L/F304L	Delivery condition solution annealed : 1900-2010° F(1040-1100° C)/water термообработка: закалка в воду

ANALYSES, %	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	18.00-20.00	8.00-10,50	<.30	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № 93137	.021	.49	1.54	.037	.028	18.83	8.37	.27	.06	.33	.04	.07	.006	.079	.010	.064		

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm ²) Re (R _{0.2})	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. Nonmetallic inclusions ASTM E 45 (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>3.0</td><td>2.0</td><td>2.0</td><td>1.5</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td> </tr> </table> ICC-ASTM A262-02a(Method E)-test: O.K. „Dimension/surface defects test,anti-mixing test – O.K. “ Ratio of reduction->20 NOTE: The customer confirms that the above stted requirements to chemical composition, dimensions,mechanical properties ,packing,marking and inspection certificate comply with the specification SS1 Rev3.	A	B	C	D					thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	2.0	1.5	0.0	0.0	1.0	1.0
A	B	C	D																												
thin	thick	thin	thick	thin	thick	thin	thick																								
3.0	2.0	2.0	1.5	0.0	0.0	1.0	1.0																								
REQUIRED	30(205)	75 (515)	45	50	140-223	100																									
EFFECTIVE	38.6(266)	80 (552)	60	78.5	163	296																									
Heat treatment (specimen)			Delivery condition: In state of delivery																												
US - testing	yes	Results: SEP 1921, 3/ Dd - O.K.					Manufacturer: JSC DNEPROSPETSSTAL Date: 18.02.08 Signed: 																								
Radiation free; mercury free. No Weld or Weld repair.							Zaporozhye Made in Ukraine.																								



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