




PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYYE, UKRAINE

	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 9728/PO44311 DIN EN 10088-3-05.DIN EN 10272-08.AD2000-Merkblatt W2;AD 2000-Merkblatt W10;ASTM A182/A182M-10;ASME SA-182/SA-182M-10;ASTM A276-10;ASTM A314-08.ASTM A479/A479M-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-10GR B8M,CL1: ASME SA-193/SA-193M-10 GR B8,CL 1:ASTM A320/A320M-08 GR B8M,CL 1;ASME SA-320/SA-320M-10 GR B8,CL1;NACE MR 0175-03;NACE MR 0103-10	Sheets:8 Sheet: 2 INSPECTION CERTIFICATE EN10204/3.1 Nr. 336112 PLANT ORDER № 8014909728	
	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+AKP Round 6.250in/158.75 mm L=18.459ft/5.630m L=18.492ft/5.640m Grade: 316/316L/1.4401/1.4404	QUANTITY: 1bund Q-2019 lb/916 kg (number of pcs) 1bund Q-4048 lb/1836 kg Delivery condition solution annealed :1900° F(1040° C)water 30minutes термообработка:закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	Sn	B
REQUIRED	<.030	<1.00	1.20-2.00	<.040	.015-.030	16.50-18.00	10.00-13.00	2.00-2.50	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10		
CAST № A06221	.018	.38	1.35	.040	.024	16,77	10.20	2.07	.068	.32	.05	.06	.068	.13	.01	.026	.011	.0024

DIN EN 10002-1,ASTM A370-09										TECHNICAL REQUIREMENTS:																																																									
MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R0.2% R 1.0%		Tensile Strength, Rm. (N/mm ²)	Elongation		Reduction of area, Z % L	Brinell Hardness HB	Impact strength, KV, J		Macrostructure – GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table border="1"> <thead> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th> </tr> </thead> <tbody> <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><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>1.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> 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-15.1:1										A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	3.0	2.0	2.0	1.0	0.0	0.0	1.0	1.0								
	A	B		C	D			A	B											C	D	A	B	C	D	A	B	C	D																																						
thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick	thin	thick																																																				
3.0	2.0	2.0	1.0	0.0	0.0	1.0	1.0																																																												
REQUIRED	205	240	515-690	40	-	40	50	140-223	100	-																																																									
EFFECTIVE	298	336	559	60	-	59	78	163	204	204	204	-	-																																																						
	302	342	553	59	-	58	78	163	208	208	208	-	-																																																						
Mechanical properties tested in state of delivery																																																																			
US - testing		yes	Results: ASTM A388/A388M-FBH1/8";EN 10308 type 1a;class 3:OK							Manufacturer:PrJSC DNIPROSPETSSTAL Date: 23.07.18 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Made in Ukraine.																																																									
Radiation free; mercury free. No Weld or Weld repair.																																																																			