


PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

	CUSTOMER DSS INTERNATIONAL SA Switzerland	PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионностойких (пержавеющих) сталей горячекатаные, обточенные на линии Ландграф. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР Round 7.00in/177.80mm L=5.34m /18.000ft; L=5.35m /18.000ft; Grade: 316/316L/1.4401/1.4404	Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№ 3642/P051840 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(EXC PAR 7.2); ASME SA-193/SA-193M-10 GR B8,CL 1(EXC PAR 7.3);NACE MR 0175-03;NACE MR 0103-10	Sheets:3 Sheet: 3 INSPECTION CERTIFICATE EN10204/3.1 Nr. 373657 PLANT ORDER № 8014903642
			QUANTITY: (number of pcs)	1bund Q-2412 lb/1094kg 1bund Q-2416 lb/1096kg
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 № A10325	.020	.49	1.50	.038	.023	16.79	10.25	2.07	.075	.24	.05	.05	.005	.12	.01	.030	.0075	.0022

DIN EN 10002-1,ASTM A370-09


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			
	A5%	L Q		In 2 inches (50mm) or 4D,min,% L	L			Q	L	Q	Q
REQUIRED	205	240	515-690	45 35	40	50	140-217	100	60		
EFFECTIVE	273 278	310 313	549 551	58 49 58 49	57 57	75 75	163 163	199 199 199 197 197 197	64 63	64 63	64 63

TECHNICAL REQUIREMENTS:
 Macrostructure – GOOD
 GRAIN SIZE : 5 to ASTM E 112-96(2004)
 Nonmetallic inclusions ASTM E 45-05 (Method A)
 A B C D
 thin thick thin thick thin thick thin thick
 2.0* 2.0 2.0 1.0 0.0 0.0 1.0 1.0
 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-12.1:1

Mechanical properties tested in state of delivery

US - testing yes Results: ASTM A388/A388M-FBHI/8";EN 10308 type 1a;class 3:OK

Date: 13.09.2021 **Manager of quality assurance**
 department - V. Kapaieva Signed:
 Zaporozhye
 Melted and Produced in Ukraine.
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Radiation free; mercury free. No Weld or Weld repair.