

C224449

**PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSE 81, 69008 ZAPOROZH'YE, UKRAINE**

Contract No.: 20002  
 TECHN.PROTOCOL № 390-11 SPEC № 9728/PO44311  
 DIN EN 10088-3-05 DIN EN 10272-08 AD2000-Metshat W2-AD 2000-Metshat 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-ASME SA-484-10-ASTM A563-07-ASTM A563M-10-ASME SA-563/SA-563M-10-ASTM A193/A193M-10GR B8M/CL1EXC PAR 7.2) ASME SA-193/SA-193M-10 GR B8 CL1EXC PAR 7.3) NACE MR 0175-03 NACE MR 0103-10

**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) стальной прокатанные, оточенные на линии Ландграф.

**STEEL MAKING PROCESS: EAF+AOD**  
**СПОСОБ ВЫПУСКА:** Электроплавка пер. + АКР

Round 3.750m/95.25 mm L-5 210m/7.082m L-5 630m/18.459ft L-5 650m/18.525ft  
**Grade: 316/316L/1.4401/1.4404**

**Delivery condition**  
 solution annealed : 1900° F (1040° C) water 30minutes  
 тепмодобработка: закалка в воду

ANALYSIS, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N	Sn	B
REQUIRED	<.030	<.100	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 № A06239	.017	.37	1.50	.040	.027	17.20	10.35	2.06	.07	.32	.05	.06	.005	.11	.01	.032	.013	.0023


DIN EN 10002-1/ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm <sup>2</sup> ) R0.2% R 1.0%	Tensile Strength, (N/mm <sup>2</sup> ) Rm	Elongation		Reduction of area, Z, % L	Brinell Hardness HB	Impact strength, KJ, J L Q
			A-% L Q	In 2 inches (50mm) or 4D, min, % L			
REQUIRED	205	515-690	40 -	40	50	140-217	100
EFFECTIVE	289 294	310 313	590 597	61 - 60 -	59 59	174 174	190 190 190 197 197 197

Mechanical properties tested in state of delivery

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

Radiation free; mercury free. No Weld or Weld repair.

Manufacturer: PrJSC DNIPROSPETSSTAL  
 Date: 27.07.18      Manager of quality assurance department - V. Kapateva  
 Signed:   
 Zaporozhye  
 Made in Ukraine.

MNS