

CO27220



**DNEPROSPETSSTAL, YUZHNOYE SHOSSE 91, ZAPOROZH'YE 69008, UKRAINE**

95829 (8.5")

Contract No.: 50005  
 TECHN.PROTOCOL № 210-06 SPEC.№ 1462/PO23042  
 ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-02;  
 ASTM A479/A479M-04; ASTM SA-479/SA-479M-04; ASTM A484/A484M-05; AMS 9005/763A-03  
 Cond.A; NACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04 GR B8M/CL1  
 ASME SA-193/SA-193M-04GR B8M/CL1; NACE MR0103

EN 10 204 43.1  
 Sheets: 9 Sheet: 9  
 QUALITY CERTIFICATE № 242440  
 PLANT ORDER № 8014901462

**CUSTOMER**  
 „DSS INTERNATIONAL SA“  
 Switzerland

**PRODUCT DESCRIPTION**  
 Bars and rods of corrosion-resistant (austenitic) steel for welded  
 Прутки из коррозионностойкого (аустенитного) легированного  
 STEEL MAKING PROCESS: EAF + AOD  
 СПОСОБ ВЫПЛАВКИ: Электрошлаковый АЭП  
 Round 8.500in/215.90 mm L= 12' to 14'00" L= 12' to 14'36"  
 Grade: 316/F316/F316L/F316L

QUALITY: Round G-2840 B/1288 kg  
 Number of pcs: Round G-3870 B/1302 kg  
 Delivery condition:  
 solution annealed 1930-2010°F (1049-1100°C) water 16minutes  
 репозитивна температура

ANALYSES, %	C	Si	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	W	Ti	Co	Nb	N <sub>2</sub>		
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	3.00-3.60	0.01	0.01	0.01	<.20	<.15	<.40	<.20	<.10		
HEAT № 95829	.025	.38	1.40	.034	.022	16.75	10.25	3.13	0.01	0.01	.05	.20	.11	.07	.01	.043		

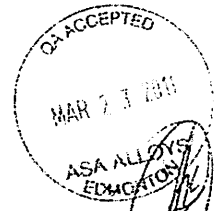
ASTM A370-08a

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>e2</sub> )	Tensile Strength, Rm, Ksi (N/mm <sup>2</sup> )	Elongation		Reduction of area, Z, %	Brinell Hardness HB	Impact strength, KV, J
			in 2 inches (50mm) or 4D, min. % (ASTM A370)	in 5 inches (125mm) or 5D, min. % (ASTM A370)			
REQUIRED	36(248)	75 (515)	45	50	140-223	100	
EFFECTIVE	41.3(284)	83.1(571)	57	75	67	94	

Mechanical properties tested in state of delivery  
 US - testing      yes      Results: SEP 1921, 3/ Cc - O.K.

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

**TECHNICAL REQUIREMENTS:**  
 Macrostructure - GOOD  
 GRAIN SIZE - 5 to ASTM E 112  
 Nonmetallic inclusions - ASTM E 45 (Method A)  
 A                      B                      C                      D  
 thin    thick    thin    thick    thin    thick    thin    thick  
 1.0    3.0    3.0    2.0    0    0    1.0    1.0  
 CO - ASTM A 762 G (at Method E) - test: O.K.  
 Dimensional surface defects test: anti-mixing test - O.K.  
 Ratio of reduction: 7.0:1



Manufacturer: JSC DNEPROSPETSSTAL  
 Date: 18.01.11 Signed: *[Signature]*  
 V. Kaputava  
 Zaporozh'ye  
 Made in Ukraine.

