

94669 (11<sup>а</sup>)

DS 65601014

DSRB0558



**DNEPROSPETSSTAL, YUZHNOYE SHOSSE 81, ZAPOROZHYE 69008, UKRAINE**

QMS Certified  
 Contract No.: 07234  
 TECHN. PROTOCOL № 210-06 SPEC. № 5769/PO 127866  
 ASTM A182/A182M-05; ASME SA-182/SA-182M-04; ASTM A276-04;  
 ASTM A479/A479M-04; ASME SA-479/SA-479M-04; ASTM A484/A484M-05; AMS-00-S-763A-03  
 Cond A; NACE MR 0175-2003; AMS 5648K-02; AMS 5653F-02; ASTM A193/A193M-04c GR B8M, CL1  
 ASME SA-193/SA-193M-04GR B8M, CL1

EN10204/3.1  
 Sheets: 9 Sheet: 9  
 QUALITY CERTIFICATE Nr. 230674  
 PLANT ORDER № 8072345769

PRODUCT DESCRIPTION  
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled.  
 Прутки из коррозионностойких (нержавеющих) сталей кованные обточенные.  
 STEEL MAKING PROCESS: EAF+ADD  
 СПОСОБ ВЫПЛАВКИ: Электродуговая печь+АКР  
 Round 11.000in/279.40 mm L=2.43m/7.97ft  
 Grade: 316/F316/316L/F316L

Commodity code RB6L1100/DS

QUANTITY:  
 (number of pcs) 1bund Q-2701 10/1225 kg

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 <sub>2</sub>
REQUIRED	<.030	<1.00	1.25-2.00	<.040	.020-.030	16.00-18.00	10.00-14.00	2.00-3.00	<.10	<.40	<.10	<.20	<.15	<.40	<.20	<.10
HEAT № 94669	.020	.24	1.35	.040	.023	16.57	10.00	2.04	.082	.23	.04	.08	.085	.072	.016	.032

MECHANICAL PROPERTIES	Yield Strength, Ksi(N/mm <sup>2</sup> ) Re (R <sub>0.2</sub> )	Tensile Strength, Ksi(N/mm <sup>2</sup> )	Elongation A <sub>5</sub> %	Reduction of area, %	Brinell Hardness HB	Impact strength, KV, J
REQUIRED	30(205)	75(515)	45	50	140-223	100
EFFECTIVE	42.4(291)	83(570)	61	77	167	215

TECHNICAL REQUIREMENTS:  
 Macrostructure - GOOD  
 GRAIN SIZE: 4 to ASTM E 112  
 Nonmetallic inclusions ASIM E 45 (Method A)  
 A B C D  
 thin thick thin thick thin thick thin thick  
 2.5 2.0 2.0 1.5 0.0 0.0 1.0 1.0  
 ICC-ASTM A262-02a(Method E)-test: O.K.  
 „Dimension/surface defects test, anti-mixing test - O.K.”  
 Ratio of reduction- 5.6:1

Mechanical properties tested in state of delivery

US - testing	yes	Results: SEP 1921, 3/ Cc - O.K.
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Manufacturer: JSC DNEPROSPETSSTAL  
 Date: 05.03.10 Signed: *[Signature]*

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

Zaporozhye  
 Made in Ukraine.



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Mill Test Report

MILL TEST REPORT

MTR#: DSRB0558 Customer#: ASAALB PO#: P021485 SO#: LGR028  
 Item#: RB6L1100 Bundle#: DS65601014 Heat#: 94669

6/8/2010