

A03536-15⁴

C160757

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYYE, UKRAINE



Contract No.: 20002
 TECHN.PROTOCOL № 390-11 SPEC.№1367/P038337
 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00, 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,CL1; ASTM A320/A320M-08 GR B8M,CL1; ASME SA-320/SA-320M-10 GR B8,CL1; NACE MR 0175-03; NACE MR 0103-10

Sheets: 3 Sheet: 2
 INSPECTION CERTIFICATE EN10204/3.1 Nr.308940
 PLANT ORDER № 8014901367



CUSTOMER
 DSS INTERNATIONAL
 SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионноустойчивых (нержавеющих) сталей кованные, обточенные.
STEEL MAKING PROCESS: EAF+AOD
СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AOP
 Round 15.000in/381.00 mm L=4.530m/14.852 ft
 Grade: 316/316L/1.4401/1.4404

QUANTITY:
 (number of pcs) 1bund Q-9259 1b/4200 kg

Delivery condition
 solution annealed :1958°F(1070°C)water 34minutes
 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 № A03536	.021	.52	1.30	.035	.026	16,88	10.12	2.07	.067	.25	.06	.16	.005	.10	.013	.025	.012	.0011

DIN EN 10002-1, ASTM A370-09

MECHANICAL PROPERTIES	Yield Strength, (N/mm ²) R _{0.2} R _{1.0}		Tensile Strength, R _m , (N/mm ²)	Elongation		Reducti on of area, Z %	Brinell Hardness HB	Impact strength, KV, J		
	L	Q		A ₅ %	In 2 inches (50mm) or 4D, min, %			L	Q	
REQUIRED	205	240	515-690	45	35	40	50	140-223	100	60
EFFECTIVE	281 289	304 310	596 600	60 55	59 54.5	59 60	75 75.5	174 174	196 203 200 200 210 210	62 62 64 63 63 61

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
3.0	2.0	2.0	1.0
0.0	0.0	0.0	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

Mechanical properties tested in state of delivery

US - testing	yes	Results: ASME SA-388/SA-388M-10(ASTM A 388/A 388M-09)-FBH1/5";EN 10228-4 type 1a;class 3:OK
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Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 24.06.16 Manager of quality assurance department - V. Kapaieva
 Signed:
 Zaporozhye
 Made in Ukraine.

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