

3 pcs.

99285 (3.75)

ASA PO 78377 WO 6053/6034 CPA 2FOEL 40/80

1087384
240

PJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE



Contract No.: 50005
 TECHN. PROTOCOL № 390-11 SPEC. № 0231/P030022-ED
 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 5653E-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: 10 Sheet: 2
 QUALITY CERTIFICATE EN10204/3.1 Nr. 273900
 PLANT ORDER № 8014900231



CUSTOMER
 DSS INTERNATIONAL
 SA Switzerland

PRODUCT DESCRIPTION
 Bars and rods of corrosion-resistant (stainless) steel hot rolled, peeled on Landgraf line. Прутки из коррозионноустойчивых (нержавеющих) сталей горячекатаные, обточенные на линии Ландграф.
STEEL MAKING PROCESS: EAF+AOO
СПОСОБ ВЫПУСКА: Электродуговая печь+АКР
 Round 3.75in/95.25 mm L= 5.580m/18.295ft L=5.540m/18.164ft
 Grade: 316/316L/1.4401/1.4404

QUANTITY: 1bund Q-5683 lb/2578 kg
 (number of pcs) 1bund Q-1429 lb/648 kg

Delivery condition
 solution annealed : 1900-2010^o F (1040-1100^o C) water
 термообработка: закалка в воду

| ANALYSIS, % | C | Si | Mn | P | S | Cr | Ni | Mo | Al | Cu | V | W | Ti | Co | Nb | N ₂ | 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 Heat # № 99285 | .020 | .40 | 1.35 | .035 | .030 | 16.75 | 10.21 | 2.12 | .066 | .28 | .05 | .15 | .005 | .06 | .014 | .030 | .010 | .001 |

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 | | Reduction of area, Z % L | Brinell Hardness HB | Impact strength, KV, J | |
|-----------------------|-----------------------------------------------------------------------------|------------|---------------------------------------------------------|---------------------------------------|----------|-----------------------------|---------------------|----------------------------|---|
| | A ₅ % L | Q | | In 2 inches (50mm) or 4D, min. % L | L | | | L | Q |
| REQUIRED | 205 | 240 | 515-700 | 40 | 40 | 50 | 140-217 | 100 | |
| EFFECTIVE | 302 300 | 338 340 | 585 587 | 57 58 | 57 57 | 75 75 | 170 170 | 240 243 247 240 235 240 | |

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 | thin | thin | thin |
| 2.0 | 1.0 | 1.5 | 1.0 |
| 0.0 | 0.0 | 0.0 | 1.0 |
| 1.0 | 1.0 | | |

 ICC-ASTM A262-08 (practice F)-test: O.K.
 Dimension/surface defects test, anti-mixing test – OK

Mechanical properties tested in state of delivery

US - testing yes Results: ASME SA-388/SA-388M-10 (ASTM A 388/A 388M-09)-FBH/8"; EN 10308 type 1a, class 3:OK

Manufacturer: PJSC DNIPROSPETSSTAL
 Date: 18.06.13 Manager of quality assurance department - V. Kapaieva
 Signed:

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

Zaporozhye
 Made in Ukraine.